University of Alberta

Investigating Teachers' Knowledge of Oral Language

by

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Dedication

I dedicate this project to my parents (Jim and Sharon) and my siblings (Sherri, Estelle, Kyle, and Coreen). I would not be where I am today without all of your love and support.

Abstract

The purpose of this dissertation was to develop and begin the process of collecting reliability and validity evidence for a questionnaire assessing teachers' knowledge of 3 language domains: language form (phonology, morphology, syntax), content (semantics), and use (pragmatics). Interviews with 4 language arts experts, a curriculum review, judgements provided by a panel of 18 language arts experts, and feedback from a pilot of the questionnaire with a group of 10 teachers assisted in the development and revision of the Oral Language Questionnaire. The third draft of the questionnaire was then field tested on 236 preservice and inservice elementary and secondary trained teachers in the provinces of Alberta and Saskatchewan, Canada. Item analyses assisted in identifying problematic items that were either retained or removed from the questionnaire. The final draft of the Oral Language Questionnaire, now termed the Assessment of Oral Language Knowledge, that resulted from this study consisted of 84 items. Forty-nine items comprised the domain of language form, 25 items comprised the domain of language content, and 10 items comprised the domain of language use. Internal consistency values were found to be higher for the domains of language form ($\hat{\alpha}= 0.91$) and content ($\hat{\alpha}= 0.78$) than for the domain of language use ($\hat{\alpha}= 0.59$). In its present form this tool can be used to investigate teachers' knowledge of the domains of language form and content. However, further work is needed to increase the internal consistency of the domain of language use. Therefore, caution should be used when interpreting the item scores obtained on this domain. A future extension of this project includes the empirical assessment of this tool to ensure that the revisions yield scores that can be validly and reliably interpreted.

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My thanks are also extended to the language arts experts from across Canada who took time out of their busy schedules to provide me feedback on this project, the directors and superintendents who granted me access to their school divisions, and the teachers who consented to participate. Your contributions were greatly appreciated.

I would like to take this opportunity to thank Dr. Louisa Moats for giving me access to her informal language questionnaires. A number of questions used in the Assessment of Oral Language Knowledge were directly taken and/or modified from Dr. Moats' Informal Language Survey (Moats, 1994) and her book on language essentials for teachers (Moats, 2000).

Thank you to Dr. Deborah McCutchen for consenting to act as my external examiner and making the time to attend my dissertation defense. I greatly valued your participation and feedback during this process.

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CHAPTER 1: INTRODUCTION

Children need to actively use language across the curriculum to construct meaning for themselves (Lindfors, 1987). Learning oral language is a primary developmental process for children. It is necessary for children to develop their receptive and expressive language skills to become effective communicators. It is expected that classroom teachers facilitate oral language development since this primary process also lays the foundation for the learning of a secondary process — written language (Perfetti & Sandak, 2000).

Researchers have frequently found that children with reading difficulties have oral language problems of various degrees, particularly at the phonemic level (Adams, 1990; Stanovich, 1988; Stanovich & Siegel, 1994; Swan & Goswami, 1997). Oral language difficulties, however, are not limited to the phonemic level. For example, Lombardino, Riccio, Hynd, and Pinheiro (1997) differentiated subjects with a primary diagnosis of specific reading disability from a comparison group by the subjects' depressed expressive language composite scores. Similarly, many preschool children diagnosed with language problems are eventually diagnosed with reading problems (Catts, Fey, Zhang, & Tomblin, 1999; Catts & Kamhi, 1999; Stothard, Snowling, Bishop, Chipchase, & Kaplan, 1998). For example, poor readers in Catts et al.'s (1999) study were found to have rates of receptive and expressive language deficits in Kindergarten four to five times greater than good readers. Most of these children with language and/or reading difficulties will receive reading instruction in inclusive classrooms alongside an already diverse group of typically achieving students.

Teachers need to continually evaluate their students' strengths and weaknesses and adapt their teaching to meet their students' language and literacy needs (Fillmore & Snow, 2000). If students' understanding and use of various aspects of language are related to their reading abilities (e.g., Roth, Speece, & Cooper, 2002; Swank & Catts, 1994), then it seems reasonable to assume that classroom teachers' abilities to provide adequate reading and writing instruction to students with varied language and reading abilities is related to teachers' knowledge of language. While this argument is intuitively appealing, there is little existing research to support it.

Purpose

The purpose of this dissertation was to develop and begin the process of collecting reliability and validity evidence for an assessment tool measuring teachers' knowledge of language form, content, and use. Existing investigations into teachers' knowledge of language have focused on teachers' knowledge of the structure or form of language (Mather, Bos, & Babur, 2001; McCutchen et al., 2002; Moats, 1994) and not on their understanding of the content and use of language. Further, no reliability and validity analyses have been undertaken with the informal surveys that have been used to investigate teachers' knowledge of language structure (L.C. Moats, personal communication, July 21, 2001). If we want to understand better what teachers know about language and how this knowledge is associated with the reading outcomes of their students, then a questionnaire that can be reliably and validly interpreted needs to be developed to survey teachers' knowledge of all three language domains: language form, content, and use.

Definition of Terms

Language

Bloom and Lahey (1978) defined language as "a code whereby ideas about the world are represented through a conventional system of arbitrary signals for communication" (p. 4). They went on to state:

> It is possible to identify three major components of language: content, form, and use. Language consists of some aspect of content or meaning that is coded or represented by linguistic form for some purpose or use in a particular context. This three-dimensional view of language is basic to describing the development of language and for understanding language disorders. (Bloom & Lahey, 1978, p. 11)

Owens (1992) reframed Bloom and Lahey's (1978) ideas, stating "language is a very complex system that can best be understood by breaking it down into its functional elements or components. Language can be divided into three major, although not necessarily equal components: form, content, and use" (Owens, 1992, p. 14). The component of language form "includes syntax, morphology, and phonology, the components that connect sounds or symbols with meaning" (Owens, 1992, p. 14). The term syntax was defined by Owens (1992) as the "organizational rules specifying word order, sentence organization, and word relationships" (p. 533). Morphology is the "aspect of language concerned with rules governing change in meaning at the intraword level" (Owens, 1992, p. 528). Phonology is the "aspect of language concerned with the rules governing the structure, distribution, and sequencing of speech sound patterns" (Owens, 1992, p. 530).

The component of language content or semantics is the "aspect of language concerned with rules governing the meaning or content of words or grammatical units" (Owens, 1992, p. 531). Lastly, the component of language use or pragmatics is the "aspect of language concerned with language use within a communication context" (Owens, 1992, p. 530).

It is important to note that the components of language are interrelated (Bloom & Lahey, 1978), and that different sources provide varying definitions of the five parameters of language (phonology, morphology, syntax, semantics, pragmatics). Therefore, in order to assist in maintaining domain clarity (Fitzpatrick, 1983), Owens' (1992) definitions of language form, content, and use were adopted in this study.

English Language Arts

The English language arts can be defined as six interrelated and interdependent areas: listening and speaking, reading and writing, viewing and representing (Manitoba Education and Training, 1998). As stated in *The Common Curriculum Framework for English Language Arts, Kindergarten to Grade 12* "the study of the English language arts enables each student to understand and appreciate language, and to use it confidently and competently in a variety of situations for communication, personal satisfaction, and learning. Students become confident and competent users of all six language arts through many opportunities to listen and speak, read and write, and view and represent in a variety of combinations and relevant contexts" (Manitoba Education and Training, 1998, p. 2).

Reading Difficulties

Terms such as reading disabilities, dyslexia, reading difficulties, and reading disorders have been used to refer to the variety of deficits evident in reading. These areas of difficulty may have different origins and different severities. However, for the purposes of this study, the term reading difficulties will be used to refer to the variety of deficits and delays that exist in the area of reading ability. When more specific terms such as *reading disability* or *developmental dyslexic* are used in the literature review, these terms reflect the usage of the original authors.

Overview of Chapter Organization

In Chapter 2, research literature is reviewed to assist in the identification of aspects of oral language important for teachers to know. In Chapter 3, the steps taken to develop the first draft of the Oral Language Questionnaire are described. The procedures used in the content analysis of the first draft of the questionnaire are presented in Chapter 4, while the procedures and results of piloting the second draft of the Oral Language Questionnaire are provided in Chapter 5. In Chapter 6, the process and results of field-testing the third version of the questionnaire with 236 elementary and secondary trained teachers is described. Lastly, a summary of the study's findings, and a discussion of the study's limitations, practical implications, and future research implications is presented in Chapter 7.

CHAPTER 2: REVIEW OF THE LITERATURE

The review of the literature related to teachers' knowledge of language is organized into two major sections. The first section critically reviews literature supporting the language basis of reading difficulties, while section two critically reviews classroom teachers' preparation and knowledge. The purpose of the literature review was to identify aspects of oral language important for teachers to understand in order to address the language and literacy needs of children with varied abilities, specifically those with language and/or reading difficulties. The identified aspects of oral language subsequently guided the development of the assessment instrument created to assess teachers' knowledge of language form, content, and use. Studies concerned with the impact of teachers' knowledge of language on children from different cultures and/or demonstrating limited English proficiency were not reviewed for this study.

Language Basis of Reading Difficulties

Just as all children who experience reading problems are not the same, not all reading problems are the same (Kamhi & Catts, 1991). Individuals experience reading difficulties for a variety of reasons. Catts and Kamhi (1999) believed:

> Reading is first and foremost a language activity. Reading relies heavily on one's knowledge of the phonologic, semantic, syntactic, and pragmatic aspects of language. As such, deficiencies in one or more of these aspects of language could significantly disrupt one's ability to read. (p. 108)

In order to learn how to read, children must have receptive language (ability to understand language) and expressive language (ability to use language). This is often referred to as oral or spoken language by researchers (Perfetti & Sandak, 2000). Children also learn to read a writing system, "and writing systems — all of them — encode spoken languages" (Perfetti & Sandak, 2000, p. 33). Part of learning to read involves children mapping their spoken language skills onto print (Mann, 1998). Phonological processing skills are part of this process. As Perfetti and Sandak (2000) stated:

> As a writing system is learned, the reader's phonological processes — indeed, all linguistic processes — naturally accommodate the properties of the learned system. In effect, reading builds on an existing linguistic system, and all readers use phonological processes, if they are able. (p. 34)

However, if these language skills are limited or disordered, then the child will likely have problems with print (Perfetti & Sandak, 2000). In order to investigate the relationship between language abilities and reading difficulties in more detail, research investigating children with reading difficulties, as well as research investigating preschool children with language problems, must be considered. First, studies investigating phonological processing skills, phonological production skills, and specific language difficulties in the areas of semantics and pragmatics will be considered.

Phonological Processing Skills

Studies exploring the relationship between spoken language skills and reading difficulties are predominant in the research literature. Two areas of focus in this research have been the language abilities of: (1) children who have been found to have reading difficulties; and (2) children identified with language difficulties prior to formal reading instruction. Reviewing this research, one finds evidence that both children with reading difficulties and preschool children with language difficulties frequently have phonological processing deficits regardless of the design used in the study (i.e., deficits in phonological awareness, phonological retrieval, and/or phonological memory; Catts, 1996; Catts & Kamhi, 1999; Torgesen, Wagner, & Rashotte, 1994). The term phonological processing has been used to refer to the variety of linguistic operations making use of information about the phonological, or speech sound, structure of language (Kamhi & Catts, 1991). Deficits in phonological processing may be evident as problems in spoken language, seen as word finding problems or struggling to produce multisyllabic words, or as difficulty learning to recognize printed words and to spell (Catts, 1996).

Poor Readers

Phonological awareness skills are one area in which individuals with reading difficulties frequently demonstrate deficits. The term phonological awareness has been defined as "one's explicit awareness of, or sensitivity to, the phonological structure of language. It is the ability to think about, compare, or manipulate the speech sounds in words" (Catts, 1999, p. 17). Studies have found a relationship between phonological awareness skills and decoding skills (i.e., translating printed words or nonwords to sound, or word recognition in reading) (Fletcher et al., 1994; Swank & Catts, 1994). For example, in order to investigate how effective four measures of phonological awareness were in predicting 54 subjects' first grade decoding abilities, Swank and Catts (1994) included a deletion task (i.e., omitting a sound or syllable in a word and producing the new word), a categorization task (i.e., identifying a word, in a group of words, which did not begin with the same sound), a blending task (i.e., combining a series of individual sounds to produce a word), and a segmentation task (i.e., breaking a word into its component sounds) in their study. Twenty-one poor decoders and 21 good decoders "were selected from among the 54 subjects on the basis of their combined performances on the word identification and word attack measures" (Swank & Catts, 1994, p. 11). They found each of the phonological awareness variables in this study demonstrated significant differences between identified groups of poor and good decoders, with the deletion task being "the most effective measure in discriminating good and poor decoders" (Swank & Catts, 1994, p. 12). Other researchers have also found school-aged individuals with reading difficulties to demonstrate phonological awareness deficits (Catts & Kamhi, 1999; Fletcher et al., 1994).

A second language area in which children with reading difficulties may demonstrate deficits is their phonological retrieval skills. Phonological retrieval or "phonological coding in the context of lexical access is the ability to retrieve speech-sound-based codes from the mental lexicon" (Swank, 1994, p. 62). Individuals who have phonological retrieval deficits may have word finding problems, which may be seen as substitutions or circumlocutions in their speech, or frequent use of nonspecific words (e.g., "thing") or speech fillers (e.g., "uh," "um") when speaking (Catts, 1996). These phonological retrieval deficits have been linked to poor reading abilities. Swan and Goswami (1997), for example, investigated poor readers' phonological retrieval skills by comparing developmental dyslexics and "garden variety" poor readers' performance on picture and word naming tasks. "Four matched groups of 16 children took part in the study" (Swan & Goswami, 1997, p. 337). These groups included the experimental group (dyslexic poor readers) and three comparison groups (non-dyslexic garden variety poor readers, reading age-matched controls, and chronological age-matched controls). Subjects in the group of dyslexic poor readers had a mean age of 11 years 11 months, the non-dyslexic garden variety poor readers had a mean age of 11 years 5 months, the reading age-matched controls had a mean age of 9 years 6 months, and the group of chronological age-matched controls had a mean age of 11 years 3 months. The researchers not only wanted to investigate the cause or source of the subjects' picture naming deficits, but also how specific and severe picture naming deficits may be in developmental dyslexics (Swan & Goswami, 1997). They found children in the dyslexic group identified "significantly fewer pictures than either age-matched or reading age-matched controls" (Swan & Goswami, 1997, p. 348). Swan and Goswami (1997) believed this finding suggested the severity of the subjects' picture naming deficit was greater than what their reading level and age would predict. They also found "that the garden variety poor readers named significantly fewer pictures than either group of controls, showing that a picture naming deficit is not specific to the dyslexic population" (Swan & Goswami, 1997, p. 348). Other studies have investigated phonological retrieval skills using continuous naming or rapid naming tasks (Catts & Kamhi, 1999). Deficits have also been found using these measures, with the rapid naming skills of Grade 2 and 6 children with reading difficulties being shown to be slower than their normal comparisons (Vellutino, Scanlon, & Spearing, 1995).

Phonological memory skills may be a third language area in which individuals with reading difficulties demonstrate deficits. Phonological memory, which is often termed phonological coding, "refers to the encoding and storage of phonological information in memory" (Catts & Kamhi, 1999, p. 113). Individuals with phonological memory problems may have trouble with their verbal short-term memory. Therefore, they may have difficulty following directions, learning to say new words, and/or taking messages (Catts, 1996). Individuals with poor reading skills have been found to have phonological memory deficits (Gerber, 1993; Lombardino et al., 1997; Torgesen, 1988). For example, Torgesen (1988) looked at a subgroup of eight learning disabled children with a mean age of 10 years 3 months who had severe memory span difficulties. He found that the phonological coding deficiencies of these subjects appeared to have their primary influence on their word identification and spelling skills. Gerber (1993) stated that a number of researchers have found "good readers to be significantly better than poor readers at remembering verbally codable material, such as nonsense syllables or words" (Gerber, 1993, p. 200). However, in most studies significant differences have not been found between good and poor readers "for non-verbally codable material, such as faces or nonsense designs" (Gerber, 1993, p. 200). This would indicate these poor readers do not have a generalized memory deficit (Gerber, 1993). They only differ on their memory for linguistic items, and "this deficit is probably restricted to the domain of phonetic representation in short-term memory" (Gerber, 1993, p. 200).

The difficulty with the studies that have looked at the relationship between language and reading is that coexisting language and reading disabilities and/or abilities were examined (Catts, Hu, Larrivee, & Swank, 1994). That is, the subjects of these studies were already demonstrating reading problems when their language abilities were investigated. If this is the case, then how can one be sure the language deficits of these subjects were the result of their reading problems and not the cause (Catts et al., 1994)? In order to clarify this point, it is necessary to consider studies that have looked at language deficits of preschoolers and their later reading development.

Preschoolers with Language Difficulties

A second area of focus in research investigating the relationship between language abilities and reading difficulties has been on the language abilities of individuals prior to the time at which they receive formal instruction in how to decode print. Research looking into the possible cause(s) of reading difficulties has provided support for theories of linguistic deficit as the frequent cause of reading difficulties (Vellutino et al., 1996). This support has been seen in studies that have found many preschool children diagnosed with language problems to be eventually diagnosed with reading problems (Catts et al., 1999; Catts & Kamhi, 1999; Stothard et al., 1998). Preschool children who later develop reading difficulties frequently demonstrate weaknesses in phonological processing (Catts, 1996).

An example of a study that found a relationship between preschool children's phonological processing difficulties and later reading difficulties was completed by Torgesen et al. (1994). These researchers examined phonological processing deficits in 288 "prereaders" as they moved from Kindergarten to Grade 2. In this study, phonological processing was defined as "an individual's mental operations that make use of the phonological or sound structure of oral language when he or she is learning how to decode written language" (Torgesen et al., 1994, p. 276). One of the goals in this longitudinal study was to investigate, "the causal relationships between phonological skills and reading" (Torgesen et al., 1994, p. 279). Results on a battery of

22 tasks assessing phonological abilities (i.e., serial naming, isolated naming, synthesis, analysis, memory), reading and pre-reading skills, and general verbal ability were obtained for the 244 children researchers followed from Kindergarten through to Grade 2. They found "that individual differences in phonological skill in kindergarten (before reading instruction began) are causally related to individual differences in subsequent growth of reading skills" (Torgesen et al., 1994, p. 284). These findings support the theory "that phonological processing disabilities are the cause of a substantial proportion of reading disabilities in young children, adolescents, and adults" (Torgesen et al., 1994, p. 284). Stothard et al. (1998) also included measures of phonological processing in assessing the spoken language and literacy skills of the 71 subjects in their longitudinal study. They followed a group of language-impaired subjects from their preschool years into adolescence. Based on their assessment results, these researchers concluded children are at high risk of difficulties in the areas of language, literacy, and general education if the language deficits identified in their preschool years are still present at 5 years 6 months of age (Stothard et al., 1998).

Difficulties with phonological processing skills, such as phonological awareness, are related to reading difficulties. The questions to be answered not only include whether these types of skills can be improved in preschool children with intervention, but also whether intervention leads to improvements in reading skills once children are introduced to print. In other words, this leads one to wonder whether a knowledgeable teacher can make a difference.

Remediation and its Effects on Reading

Evidence has been found that intervention addressing phonological awareness skills effects improvement in these skills (Gillon, 2000). Van Kleeck, Gillam, and McFadden (1998) investigated whether children's phonological awareness skills could be improved when they participate in a training study. They placed 16 preschool children identified with speech and language disorders into a training program focusing on rhyming and phoneme awareness activities. At the completion of the nine-month training program, where subjects received one semester of intervention focusing on rhyming and a second semester focusing on phoneme awareness, participants' phonological awareness abilities improved (van Kleeck et al., 1998). In this study, the improvements subjects made in their phonological awareness skills were not related to their reading skills.

Gillon (2000) was able to make a comparison between the effects of phonological awareness training starting in Kindergarten on her subjects' reading skills. Gillon (2000) sought to investigate whether 61 children diagnosed with spoken language impairment (SLI) who were "receiving phonological awareness intervention would make more gains in their reading ability compared to children receiving regular speech and language intervention and children receiving minimal intervention" (p. 128). She found the integrated phonological awareness intervention approach used resulted in a significant improvement not only in subjects' phoneme awareness and speech production skills, but also in their reading accuracy and reading comprehension skills. This finding suggested that "despite being at risk for reading failure, children with SLI have the potential to make accelerated gains in their reading development and in skills that underlie successful literacy acquisitions" (Gillon, 2000, p. 137). In summary, a person's awareness of the phonological structure of language affects the development of his or her reading skills. Phonological awareness skills can be improved upon in the preschool years when individuals experiencing deficits are exposed to an intensive integrated remediation approach (Gillon, 2000; van Kleeck et al., 1998).

Phonological Production Skills

A second language area in which children with reading difficulties and preschool children who later develop reading difficulties may demonstrate problems is in their phonological production skills. Studies have found children's phonological production or speech production abilities are also related to their reading ability (Catts, 1986; Larrivee & Catts, 1999). Poor readers may have difficulty producing complex phonological sequences (Catts, 1996). "These children often show deletions, assimilations, or metathesis [sound transposition] errors in the production of phonologically complex words and phrases" (Catts, 1996, p. 22). In a 1986 study, Catts found 20 children, aged 12 years 7 months to 15 years 9 months, who had reading disabilities made considerably more errors when producing multisyllabic words and phrases than the control group of 20 children that were matched individually for chronological age. Larrivee and Catts (1999) conducted a study investigating the relationship between early reading achievement and expressive phonological disorders. They found the 16 children who demonstrated expressive phonological disorders and poor reading outcomes had "more severe expressive phonological disorders as measured by the MULTI-PCC [percentage of correct consonants on a multi-syllabic word list], poorer phonological awareness, and poorer language skills than did [the 14] children in the good reading outcome group" (Larrivee & Catts, 1999, pp. 123-124). The relationship between, "expressive phonology (as measured by MULTI-PCC) and phonological awareness in kindergarten accounted for significant amounts of variance in first-grade reading achievement" (Larrivee & Catts, 1999, p. 124). These studies support the notion that a relationship exists between an individual's expressive phonological abilities and his or her early reading achievement (Catts, 1986; Catts, 1996; Larrivee & Catts, 1999).

Semantic Language Skills

Although phonological processing impairments have been strongly related to reading outcomes, impairments in other language areas, such as the content and function of language, have also been linked to individuals' poor reading outcomes (Swank, 1994). As Adams and Bishop (1989) stated:

> In recent years there has been increasing recognition that many children who are reasonably competent in these areas [grammar, vocabulary and phonology] may nevertheless have problems with semantics and pragmatics. Thus although their speech may be fluent and grammatically well formed, the content of what they say has an odd quality and the way in which they use language in social interactions may be unusual. (pp. 211-212)

Research has investigated children's abilities in the other areas of language, specifically, the areas of semantics and pragmatics.

Preschoolers with Semantic Language Difficulties

Children identified with language difficulties in their preschool years may continue to demonstrate language difficulties later in life. But what specific areas of language may predict individuals' language abilities beyond their preschool years? Recall that semantics, language content or meaning, is the "aspect of language concerned with rules governing the meaning or content of words or grammatical units" (Owens, 1992, p. 531). Competence in this area of language is important, since semantics has been described as "the aspect of language that is most closely linked to the processes of memory and concept formation" (Roth & Spekman, 1991, p. 164). Roth and Spekman (1991) go on to state that "memory processes are involved in the structural organization of semantic information and are essential for the efficient storage and retrieval of knowledge" (p. 164).

Language parameters, such as semantics, are complex and therefore, not likely to be measured by any one task (Gillon & Dodd, 1993). However, it should be noted that some researchers find it appropriate to utilize isolated tasks when assessing aspects of language competence (e.g., Klees & Lebrun, 1972), while others use tests that measure sets of associated skills (e.g., Gillon & Dodd, 1993).

Individuals who demonstrate difficulties in the area of semantics in the early preschool years have been found to continue to demonstrate difficulties as they prepare to enter school. When analyzing the language abilities of 87 language impaired preschoolers on a variety of language measures (e.g., expressive phonology and semantics, and language comprehension), Bishop and Edmundson (1987) found the "severity of phonological impairment did not differentiate children with good and poor [language] outcome, whereas other language measures, especially those measuring expressive semantic ability, are sufficiently strongly related to outcome to be useful in giving a prognosis for an individual child" (p. 168). That is, they discovered a preschooler's phonological skills at the age of 4 or 4 ½ were not the best predictor of a persistent language impairment at the age of 5 ½ years. It was the expressive semantic language task, the child's ability to tell back a simple story to pictures, that was the best predictor (Bishop & Edmundson, 1987).

Preschool children who later develop reading difficulties may also demonstrate specific receptive and/or expressive language deficits other than phonological processing deficits. Research has shown that language deficits are closely related to reading difficulties, and often "precede and are causally linked to reading problems" (Catts & Kamhi, 1999, p. 116). In their longitudinal study, Catts et al. (1999) set out to investigate the contributions of phonological processing and semantic, grammatical, and narrative language skills, termed oral language skills by the researchers, to children's reading and reading disabilities. One goal of their study was to discover "what proportion of children judged to be poor readers in second grade had deficits in phonological and other language abilities in kindergarten" (Catts et al., 1999, p. 335). Catts et al. (1999) measured the oral language skills and phonological processing abilities of their sample of 604 Kindergarten children, then two years later assessed the subjects' word recognition abilities and reading comprehension.

Based on the assessment of the subjects' reading achievement, the 604 subjects were divided into a group of good readers (421 subjects) and a group of poor readers (183 subjects). When researchers looked back at the prevalence of oral language and phonological processing problems in their subjects in Kindergarten, they found that 56% of these second grade poor readers demonstrated phonological awareness and rapid naming deficits (i.e., deficiencies in naming presented visual stimuli as quickly as possible) (Catts et al., 1999). They also discovered their subjects' language deficits involved more than deficits in phonological processing. Catts et al. (1999) found the percentage rates of their poor readers that demonstrated receptive (i.e., 57%) and expressive (i.e., 50%) language deficits in Kindergarten were "four to five times greater than rates observed among good readers" (p. 351). When examining the oral language deficits in terms of the domain of oral language to which they were related, researchers found "in the area of vocabulary, 39.3% of poor readers had deficits compared to only 9.0% of good readers" (Catts et al., 1999, p. 342).

Readers with Semantic Language Difficulties

School-age children with reading difficulties may demonstrate specific receptive and/or expressive language deficits other than phonological processing deficits (Gillon & Dodd, 1993, 1995). Semantic difficulties are often identified as part of a composite assessment. Overall or composite receptive and expressive language measures have been found to predict the passage comprehension abilities of children with reading difficulties (Lombardino et al., 1997; Morice & Slaghuis, 1985). Composite language measures provide a global or general assessment of an individual's ability to understand and use language. These measures typically assess an individual's understanding and use of language form (i.e., phonology, morphology, and syntax), semantics, and pragmatics. For example, in Morice and Slaghuis' (1985) study 18 poor readers, as measured by reading tasks assessing rate, accuracy, and comprehension, demonstrated language comprehension and production impairments. Their group of 25 good readers showed no evidence of language impairments. The receptive language skills of these individuals (mean age 8 years 2 months) were measured using a 62-item version of the Token Test (Whitaker & Noll, 1972). This test was felt to provide a comprehensive assessment of participants' receptive language skills (Morice & Slaghuis, 1985). Subjects' expressive language skills were measured by a grammatical analysis of a free speech sample collected on each subject. This expressive language measure focused on the syntactic aspects of subjects' expressive language skills.

Expressive language measures utilized by other researchers looking at poor readers' language skills have employed a more comprehensive view of expressive language. In Lombardino et al.'s (1997) study, children with a primary diagnosis of specific reading disability (mean age 12.6 years) were differentiated from comparison groups by their depressed expressive language composite scores. These composite expressive language scores were measured utilizing the Clinical Evaluation of Language Fundamentals-Revised (CELF-R) (Semel, Wiig, & Secord, 1987). Gillon and Dodd (1993) also utilized this test in their study since it not only assesses subject's syntactic skills but also their semantic skills. They set out "to explore the relationship between spoken language skills and specific reading disability" (Gillon & Dodd, 1993, p. 86). They administered five experimental tasks to assess 40 subjects' (between the ages of 8 and 10) phonological processing skills and five subtests from the CELF-R to measure their semantic and syntactic skills. Gillon and Dodd (1993) felt these measures distinguished between participants' semantic and syntactic skills, since the authors of the CELF-R recognized that the components of language are complex and not likely to be measured by any one task. Therefore, each one of the CELF-R's subtests was purposefully designed to provide a level of detail about an individual's language that the subtests of other language measures could not assess (Gillon & Dodd, 1993). Gillon and Dodd (1993) found the semantic and syntactic tasks utilized in their study suggested a pattern of delayed development in the 20 poor readers (mean age 9 years 1 month).

Vocabulary Skills. Several semantic development studies have found individuals with reading difficulties to have deficits on measures of lexical processing, such as vocabulary, word associations, and figurative language (Roth & Spekman, 1991). Vocabulary knowledge is a major correlate of comprehension ability (Roth et al., 2002; Snow & Burns, 1998). For example, Fry, Johnson, and Muehl (1970) completed a study in which they investigated the relationship between 73 Grade 2 students' oral language skills and their reading abilities. They found, "'average or above' readers have larger speaking vocabularies and might be described as more verbally fluent than 'below average' readers" (Fry et al., 1970, p. 136). The above average readers not only used more words to describe pictures they were presented, but they used a wider variety of words in their descriptions (Fry et al., 1970).

Vellutino, Scanlon, Small, and Tanzman (1991) investigated the word identification and text comprehension skills of 43 children with different levels of reading skill. The question they were interested in investigating was "whether or not measures of word identification and text comprehension, as determinants of reading comprehension, would be weighted differently at different levels of skills development" (Vellutino et al., 1991, p. 106). Results suggested to Vellutino et al. (1991) that "reading comprehension was found to be determined primarily by word identification and decoding processes in children at the early stages of reading skills acquisition, and primarily by higher level comprehension processes in children at more advanced stages" (p. 124). They stated that "semantic knowledge, and especially knowledge of the meaning of words, becomes an increasingly important determinant of facility in word identification, perhaps as the number of words the child encounters in print begins to expand" (Vellutino et al., 1991, p. 127). They go on to state that "because reading is one of the many ways in which new vocabulary words are acquired, children who have difficulty should become increasingly impoverished in vocabulary development, which, in turn, should add to their difficulties in reading (Vellutino et al., 1991, p. 127). Kavale (1982) also found 25 learning disabled children with a mean chronological age of 75.63 months (6.30 years), identified in part by their performance on the Metropolitan Readiness Test (Nurss & McGauvran, 1976), demonstrated greater comprehension difficulties on basic concept tasks than the group of children designated as their normal comparisons (25 subjects with a mean chronological age of 76.75 months or 6.40 years). He commented that, "the lack of a basic conceptual structure demonstrated by LD children is likely to interfere with the acquisition of academic skills and to compound existing learning problems" (Kavale, 1982, p. 161).

Another area of vocabulary knowledge in which individuals with reading difficulties were found to demonstrate deficits was their "inferior comprehension" of relational words (Roth & Spekman, 1991, p. 165). Relational words have been defined as "terms for which there are no concrete referents in the real world" (Roth & Spekman, 1991, p. 165). That is, "relational words refer to relationships between objects and/or persons, and therefore represent a more abstract class of lexical items than nonrelational words" (Roth & Spekman, 1991, pp. 165-166). For example, Wiig and Semel (1973) questioned "whether children with specific learning disabilities would exhibit significant comprehension deficits for linguistic concepts requiring logical operations when compared with academically achieving children" (p. 627). They compared a group of 32 children classified as learning disabled (mean age of 9 years 1 month) and a group of 16 academically achieving children (mean age of 9 years) on sentence comprehension tasks involving comparative relationships (i.e., Are oranges bigger than grapes?), passive constructions (i.e., John was kissed by Sue. Who was kissed?), relationships between sequential events (i.e., Does Friday come before Wednesday?), spatial events (i.e., The cat sat on the frog. Who was on the bottom?), and familial relationships (i.e., Give another name for your uncle's daughter). They found the group of children with learning disabilities made significantly more errors on the sentence comprehension tasks than their academically achieving peers (Wiig & Semel, 1973). Knowledge of relational words is an integral part of experiencing early academic success since "failure to understand relational words can significantly impair a child's ability to follow teacher directions, learn classroom routines, and acquire reading and other academic skills" (Roth & Spekman, 1991, p. 166).

Word Associations. Researchers have also found individuals with reading difficulties to demonstrate deficits on measures of word associations (Roth & Spekman, 1991). Word associations, or the ability to organize concepts and word categories, play an important role in learning new concepts (Roth & Spekman, 1991). As Roth and Spekman (1991) stated "efficient information storage and retrieval are possible only when a meaningful organization structure is imposed on the information to be stored. Thus, the construction of well-organized conceptual structures or semantic networks depends on the individual's concept formation abilities (the ability to categorize)" (Roth & Spekman, 1991, p. 164).

As an individual learns and associates an increasing number of attributes with a word "meaning becomes refined and elaborated in our lexicons" (Moats, 2000, p. 114). As an individual continually refines his or her understanding of the aspects incorporated into a category, "a hierarchical set of ideas evolves in our understanding, in which some ideas are superordinate and some others are subordinate or subsumed within others" (Moats, 2000, p. 114). Wiig and Semel (1984) stated, "language and learning disabled children may have problems in abstracting either similarities or differences in word meanings or both. They may find it difficult to classify or reclassify words and concepts by meaning features" (p. 231). The findings of Klees and Lebrun (1972) support this view. Klees and Lebrun (1972) set out to analyze "the developmental stage of the operative mechanisms compared with the figurative mechanisms in a sample of 40 dyslexic children" (Klees & Lebrun, 1972, p. 391). One of the tasks used in this endeavour was a classification task designed by Inhelder and Piaget (1964), in which respondents were asked to spontaneously classify and provide a category label for three series of pictures within a larger group of 20 cards depicting flowers. Researchers found the dyslexic subjects had specific difficulty with items involving inclusion quantification. That is, dyslexic subjects had difficulty responding to questions relating to the concept of quantity when considering a set of cards. For example, "Is the bunch of daisies bigger, smaller, or the same as the bunch of all the flowers" (Klees & Lebrun, 1972, p. 393)? Klees and Lebrun (1972) stated, "one cannot help seeing the analogy between the difficulties of the inclusion items on the classification test and the difficulties met by dyslexic children in the accession of categorical notions in language" (p. 395). The ability to structure associations between words or identify and organize the main categories (superordinate categories) and subcategories (subordinate categories) of a word and its related concepts "is a critical skill both for reading comprehension and for written composition success....[since] outlining and categorization depends on background knowledge and experience with the content" (Moats, 2000, p. 115). Deficits in word association abilities will impact an individual academically since "individuals with deficient concept formation abilities necessarily will have less elaborate vocabulary and underlying semantic networks and be less able to store information in a manner so that it can be accessed easily" (Roth & Spekman, 1991, p. 164).

Figurative Language. Figurative language, or multiple meaning words or phrases, can also pose difficulties for both typically achieving students and students experiencing difficulties in regular and specialized classrooms. These forms of nonliteral language use include similes, metaphors, proverbs, humour, and idioms (Roth & Spekman, 1991). "The ability to classify, define, and redefine multiple-meaning words is basic to the comprehension of figurative language" (Wiig & Semel, 1984, p. 250). Although processing figurative language forms or multiple meaning words involves knowledge of discourse (e.g., conversation and narration) and syntax as well as semantic knowledge, "the area of figurative language is included here within the framework of semantics because it is so strongly meaning based" (Roth & Spekman, 1991, p. 171). Typically achieving children across grade levels may experience difficulties understanding figurative language. For example, Nippold and Taylor (2002) investigated the understanding of common idioms in fifty 11-year-olds and fifty 16-year-olds. The purpose of their study was to "determine how children judged the familiarity and transparency of idioms and to compare their ratings with those produced by adolescents" (Nippold & Taylor, 2002, p. 385) and "to determine if their ratings would be associated with their own understanding of the expressions" (Nippold & Taylor, 2002, p. 385). Here, familiarity was defined as "how frequently an expression occurs in the English language" (Nippold & Taylor, 2002, p. 385). Transparency was defined as the "degree literal and nonliteral meanings compare" (Nippold & Taylor, 2002, p. 385). Using the same set of 20 English idioms, participants completed a familiarity judgement task, an idiom comprehension task, and a transparency judgement task. Nippold and Taylor (2002) found "that 11-year-old children were less familiar with idioms and had greater difficulty comprehending them than did 16-year-old adolescents, but that the two age groups did not differ in their transparency judgements" (p. 390). Younger children who are typically achieving were found to have difficulty understanding figurative language expressions. Other studies have found typically achieving children to have difficulties with other figurative language forms. Nippold, Allen, and Kirsch (2001) investigated 42 preadolescents' understanding of proverbs (e.g., gratitude is a heavy burden) and found the 24 proficient readers in their study outperformed the 18 "less proficient readers on both proverb types (i.e., concrete and abstract) and knowledge of abstract nouns, as well as on analogical reasoning" (p. 95). Typically achieving children's knowledge of figurative language appears to develop well into adolescence and therefore, may be an area of language which teachers will need to model and explain to students.

Children diagnosed with language difficulties have also been found to have difficulty understanding figurative language expressions. For example, when Bishop and Adams (1989) analyzed the conversations of 57 language impaired children and 67 typically developing 4 to 12-year-old children, they found "children with semantic-pragmatic disorder resembled younger children in that they frequently misunderstood the literal or implicit meaning of adult utterances" (p. 241). Seidenberg and Bernstein (1986) looked at the children's understanding of literal language forms, similes, and metaphors in context. The 160 third to sixth grade children were divided into two groups. One group of 80 children were identified with learning disabilities, and the other group of 80 children were not identified with learning disabilities. They found children with and without learning disabilities varied significantly on their comprehension of figurative language and their understanding of similes and metaphors. "In general, the older learning-disabled children's performance was most similar to the performance of the younger nonlearning–disabled children" (Seidenberg & Bernstein, 1986, p. 219). Figurative language forms are complex, and in order to understand these forms both children with and without language and/or learning difficulties and disorders may need carefully structured interventions (Nippold, 1991).

Lazar, Warr-Leeper, Nicholson, and Johnson (1989) stated teachers' frequent use of multiple meaning expressions "is especially important when one considers the difficulties children with language deficits have in understanding these expressions" (p. 427). If an individual has semantic deficits he "may have difficulty determining the correct or intended meaning for words with multiple meanings and connotations" (Roth & Spekman, 1991, p. 168). Deficits in this area could adversely affect their school achievement and communication exchanges with peers and adults (Roth & Spekman, 1991). However, children would not benefit from teachers limiting or eliminating their use of figurative language in the classroom. "Eliminating a child's exposure to figurative language also eliminates a rich aspect of our language, opportunities for learning, and the ability to function in other environments. Rather, we suggest that teachers should be taught how to identify, modify, and clarify their expressions" (Lazar et al., 1989, p. 427). Typically achieving children and children with language and/or learning difficulties and disorders demonstrate problems comprehending figurative language. Therefore, teachers need to expose students to, and explain, figurative language expressions throughout the students' school careers.

Pragmatic Language Difficulties

Teachers also need to be aware of another area of language to foster communication interactions in their classrooms, namely pragmatics or the use of language. As Pershey (1998) stated:

> Children learn language because they need it to function and interact with the world. A child experiments with his ability to express his intentions in functional or purposeful (real life) situations, refining over time what he says and how he says it. With this refinement, a speaker comes to know (although often unconsciously) that linguistic forms (involving syntax or morphology) must be selected which best serve the speaker's purpose. (p. 147)

However, not all children are successful in acquiring these skills. "Children with language learning disabilities may experience delays in achieving communicative competence and developing mature styles and social register in interpersonal communication" (Wiig & Semel, 1984, p. 511). Studies examining individuals' pragmatic abilities have looked at three areas: individuals' communication intentions, conversational abilities, and narrative skills (Klecan-Aker & Swank, 1987, 1988; Snow & Burns, 1998).

Communication Intentions

One area of pragmatics considered in research is the communication intentions of individuals. "Communication intentions refer to the acts that a speaker intends to carry out" (Klecan-Aker & Swank, 1988). From preschool to adulthood "individuals learn the pragmatics of their language, that is, how to use language appropriately and effectively in social contexts" (Snow & Burns, 1998, p. 49). Language is learned since it enables individuals to affect their environment and carry out their intentions (Pershey, 1998). A variety of classification systems have been developed to study the reasons why people talk (language functions) or their communicative intents (Klecan-Aker, Domico, & Bothwell, 1983). Two classification systems that have been the foundation for many research studies are that of Dore (1974, 1975) and Halliday (1973, 1975). Investigating the communication intents of individuals can give us an idea of how these individuals are functioning in their everyday communicative environments.

Klecan-Aker et al. (1983) created a classification system and examined its usefulness in categorizing a variety of language functions used by typically developing school-aged children engaged in a structured dialogue. Utilizing a question-answer model, researchers asked students selected from a pool of Grade 1, 2, and 3 students to describe the content of four stimulus pictures. "The examiner maintained the discourse by asking a series of questions" (Klecan-Aker et al., 1983, p. 133). These questions were designed to elicit responses from specific categories of language use including revision, expansion, question, affirmation/negation, identification, personal, description, repetition, explanatory elaboration, and miscellaneous (any utterance that could not be placed in any other category). Klecan-Aker et al. (1983) found this system effective in categorizing the students' responses to stimulus questions since "the taxonomy had a sufficient number of categories to handle the various types of responses that were generated by the students during the structured dialogue" and "the interscorer reliability of the coding procedure was high" (p. 141). This study led to other studies by Klecan-Aker and associates investigating language function in a variety of populations, including preschool children.

Klecan-Aker and Lopez (1984) examined 60 normal preschool children's use of language functions in a structured clinical setting. Seven categories of pragmatic language functions were elicited from each subject by examiners. The examiner placed toys on the table in front of each child and started a conversation about the toys. During this conversation examiners asked each child a series of questions to elicit four language functions (labelling, description, affirmation/negation, and repetition/revision). In the course of this conversation examiners also monitored each child's use of three other language functions (greeting, requesting, personal) and the social act of turn taking. They found similarities and differences between the typically developing male group and female group. "The two major similarities between the groups of subjects were (1) a trend of decrease in the number of inappropriate responses with an increase in age and (2) the tendency for both males and females to perform similarly within certain categories of responses" (Klecan-Aker & Lopez, 1984, p. 10). Even though males and females both demonstrated inappropriate responses, "males, generally, had more inappropriate responses in the labelling, description, affirmation/negation and requesting functions" (Klecan-Aker & Lopez, 1984, p. 10). Thus, normally developing preschool children demonstrated varying difficulties appropriately using language in structured situations.

Another group of children whose communication intentions were investigated were children identified with language-disorders. Klecan-Aker and Swank (1988) "evaluate[d] the use of language functions in a structured setting with normal and language-disordered preschool children" (p. 269). They identified eight language functions: labelling, description, revision, affirmation/negation, personal, requesting, greetings, and turn taking. Subjects' use of the first six listed functions was examined during interactions between the examiner and each subject while playing with toys. Subjects' use of greetings and turn taking were examined during conversational interactions between the examiner and each subject. Klecan-Aker and Swank (1988) found the typically developing children "used most language functions correctly a greater percentage of the time when compared with their language-disordered peers" (p. 269). They also found older children's performance to be better than the younger children's (Klecan-Aker & Swank, 1988). Children with language disorders also had difficulty correctly utilizing a variety of language functions in structured settings.

These studies conducted by Klecan-Aker and associates did not link subjects' communicative intentions to their academic achievements. In studies that have looked at the conversational and narrative skills of students, it is suggested this link may exist.

Conversational Skills

A second area of pragmatics considered is individuals' conversational skills. Studies looking at subjects' conversational abilities involved "the examination of dialogue maintenance between partners over conversational turns. Specifically, these skills include initiating, maintaining, terminating and shifting topics" (Klecan-Aker & Swank, 1988, p. 264). Difficulties in managing oral discourse may include the individual going off the conversational topic, not coming to a point in the conversation, not being successful in holding his or her own in an argument, or beginning a conversation in its middle and assuming the listener can follow the speakers' train of thought (Garnett, 1986). These difficulties are often observed in language and learning disabled children, since they are frequently,

> Unaware of audience characteristics, styles, or expectations. They may show a limited range of verbal and nonverbal communication registers and styles. Their interpersonal communications may be stereotypic and idiosyncratic; [and] they may speak in a monotone. (Wiig & Semel, 1984, p. 531)

The consequence is that individuals' responses will likely not be appropriate for the social situation or the context in which they are currently conversing (Wiig & Semel, 1984). These difficulties may significantly impact school aged children since "lessons in school, conversations with friends, and stories, instructions, reports, and explanations all require facility with and coordination of a host of discourse-level skills" (Garnett, 1986, p. 44).

Adams and Bishop (1989) compared the conversational skills of a group of fifty-seven 8 to 12-year-olds identified with specific language impairment to a group of 67 typically developing 4 to 12-year-olds. Incorporating a group of normal comparisons into the study enabled researchers "to see whether differences between language-impaired and age-matched controls corresponded to immaturities or whether they included conversational features not observed in the course of normal development" (Adams & Bishop, 1989, p. 214). Participants were encouraged to relate their experiences to researchers when shown two sets of three photographs (e.g., picture of a doctor examining a sick boy) (Adams & Bishop, 1989). "Children identified as matching the description of semantic-pragmatic disorder did not generate an unusually large number of utterances, but they did produce a high rate of initiations in conversation with an adult, and this was shown to be a stable and abnormal conversational characteristic" (Adams & Bishop, 1989, p. 238). These findings are important since productive social interactions with peers consist of more than initiating a conversation and contributing a minimal number of utterances. These pragmatic difficulties may adversely impact teacher-student interactions, peer interactions, and the formation of peer friendships. As Garnett (1986) stated, school aged subjects' conversational abilities are of particular interest since "a likely and logical link exists between the oral discourse-level difficulties of learning-disabled children and some aspects of their academic troubles" (p. 45).

Narrative Skills

Studies in the area of pragmatics have also included investigations of subjects' narrative skills. "The narrative is viewed as a fertile data base for the study of child language because children must have a variety of cognitive and linguistic skills to be able to tell or write narratives" (Klecan-Aker & Swank, 1987, p. 252). Klecan-Aker and Swank (1987) describe narratives used by children to take two forms: written or oral. They note that within oral narratives a variety of structures are possible depending on the purpose of the narrative (e.g., describing a sequence of events). The narrative skills of school-aged children are of interest given that "narrative language paves the way for the transition between oral language and literacy" (Roth & Spekman, 1991, p. 177). That is, "skill in narrative discourse may be a predictor of reading achievement and later academic success" (Roth et al., 2002, p. 262).

Klecan-Aker and Swank (1987) compared the oral narrative skills of 40 children in the first and third grades "to investigate the possible differences between the narratives of normal school-age children" (Klecan-Aker & Swank, 1987, p. 253). They were interested in exploring this area to begin to establish "a data base on normal children as a precursor to assessing the stories of children with language-learning problems" (Klecan-Aker & Swank, 1987, p. 251). They found that the third grade subjects told more complex stories than the first grade subjects, that there was a strong positive correlation between the number of episodes included in the narrative and the child's developmental level, and "that as the developmental level of the stories becomes more complex there is also an increase in the number of story components [e.g., initiating event, internal response, internal plan, attempt, consequence] used by the subjects" (Klecan-Aker & Swank, 1987, p. 258). Feagans and Short (1984) also investigated the narrative skills of school aged children. However, they looked at children with learning difficulties. In a three year longitudinal study researchers examined the narrative skills of twenty-two 6 and 7-year-old learning disabled and 21 typically achieving children. They were interested in assessing "developmental and longitudinal differences between learning-disabled and normal children's narrative skills," but also exploring "the longitudinal relationship between discourse skills and academic performance within each group" (Feagans & Short, 1984, p. 1728). In this study "discourse processes encompass most of the language skills beyond the sentence level in oral and written form, including syntax, semantics, and pragmatics. Almost all teacher instruction and written materials would be language beyond the sentence level" (Feagans & Short, 1984, p. 1727). Feagans and Short (1984) found that the children with reading disabilities understood the narratives "in comparable fashion to normal peers, but they performed more poorly on a variety of content and complexity measures derived from their paraphrases" (p. 1727). Some areas of difficulty the children with reading disabilities demonstrated included producing "fewer action units, fewer complex sentences, fewer words, and more nonreferential pronouns in their paraphrase of narratives than [their] normal peers" (Feagans & Short, 1984, p. 1734). They concluded that reading disabled children's difficulties in verbally expressing information were persistent over time (Feagans & Short, 1984).

It is important for children to develop the ability to utilize language in different social contexts. "Pragmatic knowledge is a particularly critical skill for students entering school. Because knowing how to get things done in the classroom is a skill that is not usually taught by teachers, it may be a part of the 'hidden curriculum'" (Wilkinson & Milosky, 1987, p. 61). Children typically do not receive explicit instruction in how to use language in different social situations. There is an expectation that children's abilities will automatically develop when the children are immersed in the classroom environment. However, many children need teachers to assist in the acquisition and development of their use of language. As Smith (1977) stated, "certainly children do not learn language as an abstract system, but as something they can use and understand in their interactions with the world around them" (p. 638). Language use lies at the centre of understanding language and learning, and therefore must "be a constant concern for language teachers" (Smith, 1977, p. 638).

To summarize, preschool and school aged children may demonstrate specific receptive and/or expressive language deficits other than phonological processing deficits. When an individual is considering more than the meaning of a single spoken or written word, "the comprehension of text requires a wide variety of higher level linguistic and problem solving skills" (Roth & Spekman, 1991, p. 163). These higher-level linguistic skills include semantic skills and discourse skills (e.g., conversation, narration).

There is extensive documentation of the language basis of reading difficulties. Language is an integral part of every academic subject, and therefore affects a child's performance across the school curriculum. It is now important to consider the preparation of teachers and the knowledge they bring to addressing language and/or reading difficulties in the classroom.

Classroom Teacher Preparation and Knowledge

The ability of teachers to effect academic gain in their students has long been an area of interest in the educational field. Recent research in this area has turned to considering multiple aspects or characteristics of teachers as they relate to improved student learning. Shulman (1986) differentiated between the terms content knowledge, pedagogical knowledge, and pedagogical content knowledge. Content knowledge was defined as "the amount and organization of knowledge per se in the mind of the teacher" (p. 9). Shulman (1986) defined pedagogical knowledge as "the knowledge of generic principles of classroom organization and management and the like" (p. 14). Whereas pedagogical content knowledge is "a second kind of content knowledge which goes beyond knowledge of subject matter per se to the dimension of subject matter knowledge for teaching. I still speak of content knowledge here, but of the particular form of content knowledge that embodies the aspects of content most germane to its teachability" (p. 9). Shulman (1986, 1987, 1988) believed expertise or proficiency in teaching should be described and evaluated in terms of pedagogical content knowledge (PCK). Cochran, DeRuiter, and King (1993) stated, "both subject matter knowledge and pedagogical knowledge are crucial to good teaching and student understanding" (p. 263). However, they saw a need to take other aspects of understanding into consideration and expand on the idea of pedagogical content knowledge. Teachers' pedagogical knowledge, subject matter knowledge, their understanding of the environmental context of learning, and their understanding of their students' needs have been termed pedagogical content *knowing* (Cochran et al., 1993). Cochran et al.'s (1993) interpretation of teacher knowledge indicated the need for teachers to know how to meet the individual learning needs of their students, and to have knowledge of pedagogy and the subject matter they are teaching to improve student learning.

Classroom Teacher Preparation

Meeting the Individual Learning Needs of Students

Today, general education classrooms are made up of students of all ability levels, with and without identified exceptionalities. A teacher should be prepared to design and implement programs to meet the individual learning needs of students. Teachers must be prepared to supplement programming for average students, high achieving students, and children with language and/or learning difficulties and disabilities. However, are teachers prepared to address the diverse needs of all of the children in their classrooms? Lyon, Vaassen, and Toomey (1989) administered a survey to investigate 440 teachers' general perceptions of their undergraduate and graduate training programs and how this training prepared teachers to meet individual differences in their classrooms. "The majority of teachers surveyed reported that the training programs that they attended did not provide effective, explicit, and contextualized instruction within the didactic setting or within practicum settings" (Lyon et al., 1989, p. 168). Their results suggested "a large number of teachers were not provided the instruction or experiences in their training programs that would allow them to meet the needs of many students" (Lyon et al., 1989, p. 169).

General education teachers are predominantly responsible for providing appropriate educational programming to all students. Are teachers being trained to address the needs of exceptional learners in their classrooms? Jones and Messenheimer-Young (1989) considered the special education coursework requirements for preservice general education teachers. They randomly selected 200 colleges and universities with special education programs across the United States. These institutions were asked to fill-out a survey on the special education coursework requirements they expected their general education teachers to complete during their teacher training. Fifty-seven of the 114 institutions that returned their surveys (50%) did not require preservice general education teachers to complete coursework in special education. Universities that required course hours for their teacher trainees in the area of special education ranged from two to five quarter hours and one to six semester hours. Jones and Messenheimer-Young (1989) concluded teachers were not being adequately prepared to meet the individual learning needs of exceptional students, since limited course requirements are not affording them "with opportunities to develop the skills necessary to teach all students in the mainstream" (p. 158). They added that "some future teachers will not have had the opportunity to apply their knowledge or have direct experiences with exceptional learners or parents before assuming professional responsibility for a classroom" (Jones & Messenheimer-Young, 1989, p. 158).

Similar course requirements exist in Canadian teacher training programs. For example, at the University of Alberta general preservice elementary and secondary teachers are only required to take three credits in the area of special education to graduate (University of Alberta, 2002). These are similar to the course requirements at the University of Saskatchewan (University of Saskatchewan, 2003). In Canada and the United States teachers' education coursework may not be providing them with opportunities to develop the necessary knowledge and skills to meet the diverse learning needs of students in the regular classroom environment.

Teacher Preparation in the Areas of Reading and Writing

Teacher education or training studies have also considered teachers' preparation to teach specific content areas such as reading and writing. Teachers should be prepared to teach reading and writing, as these skills are necessary in every subject area. Nolen, McCutchen, and Berninger (1990) conducted a survey of 48 state departments of education looking at existing certification requirements for teaching reading and writing from the elementary level to adult education programs. They found certification requirements to be minimal: "the diverse certification requirements, as they now exist, are not ensuring that all teachers have the knowledge and experience they need to become effective teachers of reading and writing" (Nolen et al., 1990, p. 68). Nolen et al. (1990) stated, "now is the time for professional educators and policy makers to strengthen teacher preparation requirements in reading and writing and thus enable the teacher to become the agent rather than the object of educational reform" (p. 70).

Moats and Lyon (1996), interpreting the findings of Nolen et al.'s (1990) study, stated that there were "minimal requirements in literacy education, which range from no course work in reading to an average of three to six credit hours" (p. 76). They believed these limited requirements meant teachers were not prepared to teach reading and writing to their typically achieving students. Moats and Lyon (1996) questioned how teachers could be expected to address the needs of typically achieving students with these minimal requirements, let alone children at risk. Fourteen years after Nolen et al.'s (1990) study similar course requirements still exist in Canadian teacher training programs. For example, at the University of Alberta preservice elementary teachers are only required to take three credits in the area of reading and/or language arts to graduate (University of Alberta, 2002). Preservice secondary teachers who are not specializing in English Language Arts are not required to take any courses in the area of reading or language arts (University of Alberta, 2002). Teacher training programs at the University of Saskatchewan only require preservice elementary teachers to take six credits in the area of reading and/or language arts to graduate (University of Saskatchewan, 2003). Preservice secondary teachers are only required to take three credits (University of Saskatchewan, 2003).

The studies that looked at teachers' preparation to address the individual learning needs of students (Jones & Messenheimer-Young, 1989; Lyon et al., 1989) and to teach reading and writing in the classroom (Moats & Lyon, 1996; Nolen et al., 1990) concentrated on the number of credits teachers acquired during their preparation. However, they did not consider the level or type of knowledge teachers acquired in the courses they took. "Every teacher must receive quality preparation on all aspects of research-based reading pedagogy. Teacher education programs must get preservice teachers off to a running start on acquiring the knowledge, skill and will it takes to be an effective teacher" (IRA, 2003). The standards established by the International Reading Association (IRA) for preparing classroom reading teachers include ensuring teachers have an understanding of: foundational knowledge and dispositions; instructional strategies and curriculum materials; assessment, diagnosis, and evaluation; creating a literate environment; and professional development (IRA, 2003). In the area of foundational knowledge and dispositions, teachers should specifically "know how reading develops, [and] know how oral language helps students acquire written language…" (IRA, 2003). One can not know whether the knowledge base currently trained teachers acquire is sufficient or insufficient without assessing it. One can not know whether the combination of practical experience and classroom instruction the teachers were exposed to in their training complemented each other in the development of their knowledge about reading and writing. It may not be sufficient to only rely on a review of the number of courses taken by teachers to assess their knowledge of teaching or of a subject area. Instead, the knowledge base teachers bring to the teaching of any subject area should be investigated more directly.

Effect of Teachers' Knowledge on Student Academic Outcomes

Implicit Knowledge and Beliefs

Preservice and inservice teachers have implicit theories regarding their students, their teaching responsibilities, and the academic subjects they are responsible for teaching (Fang, 1996). These "theories and beliefs make up an important part of teachers' general knowledge through which teachers perceive, process and act upon information in the classroom" (Fang, 1996, p. 49). Fang (1996) reviewed a body of research studying the relationship between teacher beliefs and practices in the area of reading, specifically focusing on the two competing theories of consistency and inconsistency that recur in the literature. Studies supporting the consistency thesis between teachers' beliefs and practices argue teachers' teaching or classroom practices match their theoretical beliefs (Fang, 1996). As Fang (1996) summarized:

> Reading research has examined how teachers' personal beliefs about teaching and learning affects their decision-making and behaviours. A substantial number of such studies support the notion that teachers do possess theoretical beliefs towards reading and that such beliefs tend to shape the nature of their instructional practices (Blanton and Moorman, 1987; Brophy and Good, 1974; Haste and Burk, 1977; Kamil and Pearson, 1977; Leu and Misulis, 1986; Longberger, 1992; Mangano and Allen, 1986; Rupley and Logan, 1984). (p. 52)

Studies supporting the inconsistency thesis between teachers' beliefs and practices maintain that teachers' teaching or classroom practices do not match their theoretical beliefs. Fang (1996) identified a number of studies supporting this belief (Duffy & Anderson, 1984; Johnson, 1992; Kinzer, 1988; Readence, Konopak, & Wilson, 1991). However, Fang (1996) stated it was not unexpected to find inconsistency between teachers' beliefs and practices.

> Earlier researchers have noted that the complexities of classroom life can constrain teachers' abilities to attend to their beliefs and provide instruction which aligns with their theoretical beliefs (Duffy, 1982; Duffy and Anderson, 1984; Duffy and Ball, 1986; Paris, Wasik and Turner, 1991; Roehler and Duffy, 1991). This suggests that contextual factors can have powerful influences on teachers' beliefs and, in effect, affect their classroom practice. (Fang, 1996, p. 53)

Differences between a teacher's beliefs and his or her classroom practice could stem from a variety of complexities that are often encountered in the classroom and school environment. These complexities could include: classroom routines, varying levels of support needed by students with differing ability levels, classroom management issues, manner in which students best learn material, available classroom materials, administrators' beliefs and attitudes, and colleagues' beliefs and attitudes (Fang, 1996). Therefore, teachers' beliefs may not always be mirrored in their classroom practice.

Taking teachers' beliefs and their implicit knowledge into consideration may inform our understanding of classroom practice. However, research investigating teachers' thought processes have not taken into consideration teachers' subject matter knowledge (Fang, 1996). Fang (1996) commented that studies in the 1970's and 1980's investigating teachers' thought processes emphasized teachers' decision making "with little reference to the knowledge of subject-matter upon which these decisions are based" (p. 50). That is, "what is missing in this new line of research are issues with respect to teachers such as: 'Where do teacher explanations come from?' 'How do teachers decide what to teach, how to represent it, how to question students about it and how to deal with problems of misunderstanding?'" (Fang, 1996, p. 50). It is important to go beyond consideration of teachers' beliefs about a subject to also consider the types of knowledge teachers learn or acquire in subject areas. It is the acquisition of knowledge that expands the minds of teachers and students alike.

Declarative, Procedural, and Conditional Knowledge

As learners move from being novices to experts they acquire three major types of knowledge: declarative, procedural, and conditional (Paris, Lipson, & Wixson, 1983). Declarative knowledge can be defined as "knowledge that can be declared, usually in words, through lectures, books, writing, verbal exchange, Braille, sign language, mathematical notation, and so on" (Farnham-Diggory, 1994, p. 468). Gagne (1985) called this verbal information or the ability to state ideas. Farnham-Diggory (1994) defined procedural knowledge as, "knowledge that must be demonstrated" (p. 468). Procedural knowledge has also been termed intellectual skills (using symbols such as oral language to interact with the environment) or knowing how (Gagne, 1985). And finally, "conditional knowledge includes knowing when and why to apply various actions" (Paris et al., 1983, p. 303), or when and why "to apply your declarative and procedural knowledge" (Woolfolk, Winne, & Perry, 2000, p. 233).

Teachers can utilize their declarative, procedural, and conditional knowledge to "guide children to become strategic readers by providing both knowledge and motivation" (Paris et al., 1983, p. 310). Teachers can "model components of strategic reading and provide corrective feedback" (Paris et al., 1983, p. 310). Teachers may also "impart declarative, procedural, and conditional knowledge that students use to develop personal evaluations of reading skills. These evaluations can influence how students recruit, apply, and manage their own strategic reading behaviour" (Paris et al., 1983, p. 310). In the area of reading, "discussing, understanding, and applying strategic actions are especially important in three reading situations; during initial learning, for troubleshooting, and when processing capacity is exceeded (e.g., the task is too difficult or the subject is fatigued or stressed)" (Paris et al., 1983, p. 297).

Teachers are expected to be knowledgeable about the curriculum. They are also expected to be content area experts. "Experts in a particular field have a wealth of domain-specific knowledge, that is, knowledge that applies specifically to their area or domain" (Woolfolk et al., 2000, p. 256). This knowledge includes declarative, procedural, and conditional knowledge. The declarative knowledge of teachers, in a variety of areas, has received much attention in the literature.

Knowledge of Pedagogy and Subject Matter of Academic Areas

Studies have directly investigated different aspects of teachers' knowledge of pedagogy and of subject matter. For example, Ferguson and Womack (1993) were interested in the degree to which subject matter and education coursework predicted 266 secondary student teachers' teaching performance. Participants' teaching performance and instructional competence was formally evaluated three to four times by the student teachers themselves, college/university student teacher supervisors, content area specialist teaching supervisors, and cooperating teachers. A survey questionnaire consisting of 107 Likert response items (number of Likert scale points not reported) was used to measure teaching performance, while "instructional competence was measured according to 13 categories of expertise" (Ferguson & Womack, 1993, p. 59). They found "coursework in teacher education makes a positive difference in teaching performance and that education coursework is a more powerful predictor of teaching effectiveness than measures of content expertise" (Ferguson & Womack, 1993, p. 61). Although these students' teaching performance was influenced by their knowledge of pedagogy, does this knowledge affect their students' academic outcomes?

Munro (1999) investigated the effects of teachers' knowledge of pedagogy on their students' learning outcomes. He had 32 qualified teachers engage "in a systematic analysis of their existing knowledge of learning and of their beliefs about learning" (Munro, 1999, p. 154). Munro (1999) hypothesized that exposing teachers to a systematic examination of the learning process would not only increase their display of effective teaching behaviours and alter their attitudes toward learning, but also have an impact on their students' learning outcomes. Following participants' involvement in his professional development program, Munro (1999) found an increase in the mean number of participants' instances of effective teaching behaviours, an increase in participant knowledge of contemporary learning theories and of their own personal explicit theory of learning, and a substantial gain in the quality of their students' learning outcomes.

Research in academic areas, such as science, social studies, and mathematics, has emphasized the importance of teacher content knowledge in effecting better student outcomes (Allgood & Walstad, 1999). Allgood and Walstad (1999), for example, set out to investigate whether teachers' improved knowledge of economics contributed to improved knowledge of economics in their high school students. The 32 teachers in their study attended a three-year summer masters degree program in economics, during which their knowledge of economics was assessed four times using a standardized test of economics and an opinion measure on the area of economics. Upon completion of the program, a sub sample of 12 teachers pre-tested and post-tested their high school students who were taking a semester long course in economics from them. Allgood and Walstad (1999) found "economics teachers with more economic knowledge or those that thought more like economists were more able to improve student learning of economics" (p. 109). They felt these results suggested "that intensive and lengthy instruction in economics for teachers has a long-term payoff in economic understanding for both teachers and students" (Allgood & Walstad, 1999, p.

109). This study links teachers' preparation or training in a specific content area to improvements in their students' learning or knowledge base in that subject.

The subject matter knowledge of elementary school teachers has also been related to improved student learning. For example, Mandeville and Liu (1997) assessed the "effect of teacher mathematics preparation and the thinking level of mathematics problems on student performance" (p. 397). They used teachers' type of certification (elementary versus secondary mathematics) as a measure of teachers' knowledge of mathematics. This variable had two designated levels, low and high. That is, "schools in which all seventh grade mathematics teachers had secondary certification or had 12 or more credit hours in mathematics beyond initial certification were classified as high MATHPREP schools, i.e., those with larger value of MATHPREP" (Mandeville & Liu, 1997, p. 399). The students included 4, 869 seventh grade students from schools designated as having teachers with a high level of mathematics certification, and 4, 492 seventh grade students from schools designated as having teachers with a low level of mathematics certification (Mandeville & Liu, 1997). The achievement of the students was assessed using the mathematics items of the Stanford Achievement Test (Psychological Corporation Harcourt Brace Jovanovich, 1989). Three levels of thinking were identified to be tapped with these items. These levels included, from the lowest to the highest level, knowledge and recognition, understanding, and thinking skills. Results showed an increase in students' mathematics performance was generally associated with an increase in their thinking level (i.e., monotonic relationship) (Mandeville & Liu, 1997). Specifically, "differences between the performance of seventh grade students taught by teachers with more specialized training and those taught by teachers with less specialized training…were both statistically and practically significant and favoured the students of teachers with more specialized training when performance was measured by high level mathematics problems" (Mandeville & Liu, 1997, p. 405). They concluded "seventh grade students tend to perform better on higher level thinking tasks in mathematics when the teachers who teach them the subject have advanced certification in it" (Mandeville & Liu, 1997, p. 405).

The reviewed literature indicated both teachers' knowledge of pedagogy and their knowledge of subject matter can affect students' learning outcomes. Next, it is important to consider teachers' knowledge of reading and writing, areas that are an essential part of most academic subjects.

Knowledge of Reading, Writing, and Language

Teachers' knowledge of reading and writing, or literacy, can also influence their instructional practices and effect improvements in students' academic outcomes. O'Connor (1999), for example, described a project in which a professional development program used with practicing Kindergarten teachers was studied. Specifically, "the project investigated two intensity levels of professional development, and focused on the efficacy of the activities for promoting children's early reading progress" (O'Connor, 1999, p. 203). Two types of professional development programs, three-half day sessions spaced throughout the school year and an intensive year-long program, were utilized to assist teachers in implementing phonological awareness activities in their classrooms. Four schools in a large urban district agreed to participate in the intensive professional development. Six teachers attended the intensive inservice program, while four agreed to serve as control classrooms. A large rural school district agreed to participate in the traditional inservice program (i.e., three half-day sessions). Eight teachers participated in the three half day professional development sessions, while nine agreed to serve as control classrooms. The students of these teachers were assessed three times during the year on a series of phonological measures (rhyme production, segmentation of words) and letter knowledge tasks (rapid letter naming, letter identification, and word identification). Teachers kept activity logs to document the number of phonological awareness activities they used in their classrooms. These reported numbers were verified by the researcher through classroom observation. Direct assessments of the knowledge teachers acquired during or upon completion of these inservice sessions were not collected. The researcher looked at teachers' implementation of the activities, the progress of students who had teachers participating in the intensive professional development program, the progress of students who had teachers participating in the three day "traditional professional development" (O'Connor, 1999, p. 209), and compared student progress by the type of professional development program teachers had attended. O'Connor (1999) found "children whose teachers learned to implement phonological and print awareness activities performed better than children in control classes on phonological and literacy measures, with those in classes of teachers with more intensive professional development achieving the highest literacy outcomes" (p. 203). The findings of this study revealed that teachers' knowledge of phonological awareness can be improved when enriched practical learning opportunities are utilized, and that this knowledge can lead to better student achievement in this area in the classroom.

Teachers' knowledge of subject matter has been related to better student outcomes. However, there is a larger base of knowledge teachers rely on to communicate and teach their students – knowledge of language. Language is involved in more than the teaching of reading and writing, it underlies the knowledge of any single subject. Language affects learning across the school curriculum (Lindfors, 1987). Although little is known about the connection between teachers' explicit knowledge of the different aspects of oral and written language and their students' reading outcomes, there is reason to be curious about this language knowledge. In order to teach and interact with students in the classroom teachers must have more than knowledge of how to address students' individual differences, knowledge of pedagogy, and subject matter knowledge. Teachers must also have knowledge of language (Mather et al., 2001; McCutchen et al., 2002; McCutchen & Berninger, 1999; Moats, 1994, 2000; Moats & Lyon, 1996; Webster, 1999; Wilson, 1999).

Existing research on teachers' knowledge of language has focused on their knowledge of language form (Mather et al., 2001; McCutchen et al., 2002; McCutchen & Berninger, 1999; Moats, 1994; Moats & Lyon, 1996). For example, Moats (1994) was interested in assessing "the specificity and depth of teachers' knowledge in order to reveal misconceptions or unfocused concepts as well as [the] outright absence of information" (Moats, 1994, p. 89). Eighty-nine people, including reading teachers, special education teachers, classroom teachers, speech-language pathologists, classroom teaching assistants, and graduate students, enrolled in a course entitled Reading, Spelling, and Phonology out of their own interest. At the first session of the course participants were administered one of two surveys "designed to assess the knowledge teachers have of speech sounds, their identity in words, correspondence between sounds and symbols, concepts of language, and presence of morphemic units in words" (Moats, 1994, p. 89). Fifty-two individuals completed the first version of a survey of preexisting linguistic knowledge, while the 37 remaining subjects completed a "somewhat refined survey" (Moats, 1994, p. 91). Specifically, this survey assessed participants' abilities to give definitions for linguistic terms, to find and/or come up with examples of phonic, syllabic, and morphemic units, and to analyze and segment words into speech sounds, syllables, and morphemes.

Moats (1994) found subjects demonstrated "insufficiently developed concepts about language and pervasive conceptual weaknesses in the very skills that are needed for direct, language-focused reading instruction, such as the ability to count phonemes and to identify phonic relationships" (p. 91). Areas of concern included understanding terminology (e.g., defining the terms inflection and derivation, distinguishing between a compound and an affixed word form), phonic knowledge (e.g., identifying consonant blends in written words), phoneme awareness (e.g., knowing the word "ox" is made up of three speech sounds), and morpheme awareness (e.g., knowing the word "pies" is made up of two morphemes). Moats (1994) reported these results indicated that teachers typically have a limited understanding of spoken and written language form, and further suggested that they would not be able to teach language form to either beginning readers or to those with reading/spelling disabilities. This knowledge of language is important since, "teachers' content knowledge is critical to successful instruction because they can then choose what to teach, when, how, and to whom" (Moats, 1994, p. 95). Moats (1994) identified advantages of teachers having a good knowledge base of language form to include being able to: interpret and respond to student errors, pick the best examples for teaching decoding and spelling, organize and sequence information for instruction, use knowledge of morphology to explain spelling, and integrate the components of language arts instruction (e.g., integrating word study with the reading and writing of meaningful text).

A study that considered both teachers' perceptions of literacy instruction and their knowledge of language form was conducted by Mather, Bos, and Babur (2001). These researchers set out to "examine the perceptions and knowledge of early literacy instruction of general educators at two professional levels (preservice and inservice)" (Mather et al., 2001, p. 473). Two measures were utilized in the study. The first measure was a perception survey which was adapted from The Teacher Perceptions Toward Early Reading and Spelling (Deford, 1985). The second measure was a knowledge assessment, The Teacher Knowledge Assessment: Structure of Language, which was adapted from Lerner (1997), Moats (1994), and Rath (1994). The first group of subjects included 293 preservice teachers. The majority of these subjects had no experience as substitute teachers or as teaching assistants, and had taken between one to three literacy courses. The remaining group in the study included 131 inservice teachers. This group contained teachers with three or more years of experience who were employed as Kindergarten through Grade 3 teachers. During the last semester of their teacher education program, once student teaching had been completed, preservice teachers completed the perception survey and the knowledge assessment. At the end of the school year, Mather et al. (2001) collected data from the inservice teacher group prior to their participation in Project RIME (Reading Instructional Methods of Efficacy), a larger federally funded project researchers were implementing.

Mather et al. (2001) found that "inservice teachers were more knowledgeable about the structure of language than preservice teachers. Neither group, however, obtained high scores on the assessment" (p. 476). As for participant's perceptions of literacy instruction, "inservice teachers had more positive perceptions about using explicit, code-based instruction to teach early literacy skills than preservice teachers" (Mather et al., 2001, p. 476). "Both preservice teachers and inservice teachers had positive perceptions about the role and importance of implicit, holistic instruction in reading development" (Mather et al., 2001, p. 478). These findings were important since in order to meet the learning needs of children at risk for reading difficulties, or students with learning disabilities, "teachers need to possess positive perceptions regarding the role of systematic, explicit instruction and a knowledge of language structure" (Mather et al., 2001, p. 472). Mather et al. (2001) concluded, "our results reiterate the conclusions drawn by Moats (1994); many teachers have an insufficient grasp of spoken and written language structure…" (p. 480).

Teachers have demonstrated deficits in their understanding of language structure. In McCutchen et al.'s (2002) study researchers first assessed teachers' knowledge of language structure then investigated whether this knowledge could be improved upon with training. Three primary research questions guided this study. First, when utilizing "an instructional intervention of realistic duration," can "teachers' knowledge of the structural features of language, especially phonology and its link to orthography" be deepened (McCutchen et al., 2002, p. 70)? Second, will the teachers participating in the study change "the instructional techniques they used with their students" (McCutchen et al., 2002, p. 70)? And if they do change their instructional techniques, what changes do they make? And third, do "students who experience such teaching" acquire skills in reading and writing more quickly than peers in other classrooms (McCutchen et al., 2002, p. 70)? Forty-four teachers, 24 in the experimental group and 20 in the control group, participated in this study. Researchers "followed the teachers into their classrooms for a year, collecting learning data on 492 Kindergarten and 287 first grade students across 43 classrooms (23 experimental and 20 control classrooms; two experimental group teachers teamed up in the same classroom)" (McCutchen et al., 2002, p. 70). Areas of teacher knowledge that were assessed included teachers' general knowledge, their knowledge and beliefs about teaching reading, and their knowledge of language form. Teachers' knowledge of language form was assessed using the Informal Survey of Linguistic Knowledge (Moats, 1994; Moats & Lyon, 1996). Teachers' literacy instruction was observed and coded throughout the school year. Student learning was assessed four times during the school year in Kindergarten classrooms and three times in first-grade classrooms. Kindergarten students' phonological awareness, listening comprehension, orthographic fluency, and word reading were assessed. Grade 1 students' phonological awareness, reading comprehension, orthographic fluency, spelling, and composition of short narratives were assessed. The initial assessment of teachers' general knowledge and their knowledge of language in both the experimental and control groups found that "despite their high knowledge of the world in general, these teachers were not very knowledgeable about English phonology and orthography as measured by the Moats survey" (McCutchen et al., 2002, p. 75). The results of the study revealed that teachers' knowledge of phonological awareness and their use of this knowledge to change their classroom practice was deepened following intervention, and these changes in turn improved student learning (McCutchen et al., 2002). This study linked increased knowledge of language form to improved student reading outcomes. These findings led McCutchen and her colleagues to conclude that "when effective practice is in the hands (and heads) of teachers, who work on the educational front lines, we may begin to hope for progress in the only reading war that really matters – the one against reading and writing disability" (McCutchen et al., 2002, p. 82).

Although existing research (Mather et al., 2001; McCutchen et al., 2002; Moats, 1994; Moats & Lyon, 1996; Lyon, 1999) has emphasized the importance of teachers understanding the structure of language to teach reading in the classroom, teachers' understanding of semantics and pragmatics is also important (Moats, 1994; Moats & Lyon, 1996). As Moats (1994) stated, "certainly, knowledge of the structure of language and the alphabetic writing system that represents it is not all that teachers must know in order to teach reading well" (Moats, 1994, p. 85). The implication is that knowledge of different aspects of language may also play a role. However, existing research has only focused on one aspect of teachers' knowledge of language, language form.

Summary

Teachers are more likely than not to be faced with the challenge of implementing programming to meet the needs of children with varying language abilities. Therefore, teachers' knowledge of language is essential. This includes understanding basic language terms, which may vary from source to source, to assist teachers in reading and understanding the curriculum. This understanding of the different aspects of language can only assist teachers in making informed instructional decisions.

Teachers can utilize their declarative, procedural, and conditional knowledge to "guide children to become strategic readers by providing both knowledge and motivation" (Paris et al., 1983, p. 310). Teachers can "model components of strategic reading and provide corrective feedback" (Paris et al., 1983, p. 310). Teachers may also "impart declarative, procedural, and conditional knowledge that students use to develop personal evaluations of reading skills" (Paris et al., 1983, p. 310). Possessing this wealth of knowledge is particularly essential in the area of reading to ensure students are understanding information that is being taught to them when they are first learning to read, and when the are experiencing difficulties (Paris et al., 1983). Highly developed teachers are diagnostic teachers, adapting the content of their instruction and their learning materials to meet the ever changing needs of their students. Declarative knowledge of language would, therefore, be an essential component in the instructional arsenal of a classroom teacher.

To summarize, studies have provided a foundation of research demonstrating that poor readers may exhibit a variety of language deficits, and children with language difficulties may have difficulty reading later in life. These results were found across studies regardless of the study's design. Research has also shown specifically targetted training approaches, as seen with phonological awareness training, can have a positive impact not only on its recipients' language skills but on their reading skills as well. In the literature reviewed in the area of teachers' knowledge of language the focus has been on one aspect of language, language structure or form. Existing studies have not focused on teachers' knowledge of language content and use. In addition, two points need to be made regarding the informal language surveys developed by Moats (1994, 2000). First, no reliability and validity analyses have been undertaken with these informal language surveys (L.C. Moats, personal communication, July 21, 2001). Second, when selected items from these surveys and her book were reviewed by experts in the field of language arts (see Chapter 4), errors were noted in some of the items and in the answer key for some of the items. Although these surveys are being used by researchers to examine teachers' knowledge of language form, changes to their content need to be made. If we want to understand better what teachers know about language and how this knowledge is associated with the reading outcomes of their students, then a questionnaire that can be reliably and validly interpreted needs to be developed to survey teachers' knowledge of all three language domains: language form, content, and use. The purpose of this dissertation was to develop and begin the process of collecting reliability and validity evidence for such a questionnaire.

CHAPTER 3: INSTRUMENT DEVELOPMENT

The development and validation of any instrument is completed in stages. The steps utilized in this study to develop the Oral Language Questionnaire were based on those suggested by Crocker and Algina (1986). These suggested ten steps include:

> 1. Identify the primary purpose(s) for which the test scores will be used.
> 2. Identify behaviours that represent the construct or define the domain.
> 3. Prepare a set of test specifications, delineating the proportion of items that should focus on each type of behaviour identified in step 2.
> 4. Construct an initial pool of items.
> 5. Have items reviewed (and revise as necessary).
> 6. Hold preliminary item tryouts (and revise as necessary).
> 7. Field-test the items on a large sample representative of the examinee population for whom the test is intended.
> 8. Determine statistical properties of item scores and, when appropriate, eliminate items that do not meet preestablished criteria.
> 9. Design and conduct reliability and validity studies for the final form of the test.
> 10. Develop guidelines for administration, scoring, and interpretation of the test scores (e.g., prepare norm tables, suggest recommended cutting scores standards for performance, etc.). (Crocker & Algina, 1986, p. 66)

These suggested steps served as guidelines for the researcher not only in planning this study, but also when considering future extensions of this project.

Following a review of the literature, a two stage process was used to identify the areas of language form, content, and use essential for teachers to know. In stage one, four language arts experts were interviewed to assist the researcher in identifying the aspects of oral language important for teachers to know. The informants' responses were reviewed to find the areas each expert identified as essential for teachers to know in the areas of language form, content, and use. These interviews gave the researcher a general guideline as to what to include in the questionnaire. In stage two, an assessment of *The Common Curriculum Framework for English Language Arts, Kindergarten to Grade 12* (Manitoba Education and Training, 1998) was made in order to determine specific tasks teachers were expected to incorporate into their classrooms relating to the identified aspects of oral language. This is a document developed by the governments of Alberta, British Columbia, Manitoba, the Northwest Territories, Saskatchewan, and the Yukon Territory to serve as a guide to develop the English language arts curricula in Western Canada. One member of this development team, the province of Manitoba, published the framework. In the remainder of this document, *The Common Curriculum Framework for English Language Arts, Kindergarten to Grade 12* (Manitoba Education and Training, 1998) will be simply be abbreviated as the *ELA Curriculum Framework.* Aspects of language essential for teachers to know in the domains of language form, content, and use that represented areas of consensus among the informants were identified. Questions representing the language tasks identified in the *ELA Curriculum Framework* that teachers were expected to utilize in their classrooms at the elementary level were directly taken from a variety of sources, modified from sources, and/or developed to incorporate into the first draft of the Oral Language Questionnaire.

Expert Interviews

Method and Procedures

Participants

Eleven language arts professors from three Canadian universities in Western Canada, identified by their listed areas of interest (curriculum and pedagogy in listening and speaking, reading and writing, and/or viewing and representing) on their university websites, were approached by e-mail to act as experts. Four professors from three Canadian universities responded and consented to participate in this portion of the study. The remaining seven professors indicated they would not be able to participate due to previous commitments or lack of time. The four experts' employment at the university level ranged from 5 to 22 years, while their experience teaching in the area of language arts at the university level ranged from 9 to 22 years. In order to ensure the experts' anonymity, all feedback obtained from these participants was only identifiable by a code number and not by name.

Data Collection

Each language arts expert who consented to participate was asked to respond to the question: In the areas of language form (phonology, morphology, syntax), language content (semantics), and language use (pragmatics), what do you think is important for teachers to know? A written representation of this question and the definitions of the three language domains (see Owens, 1992) were given to each of the experts to refer to at the beginning of the interview. Experts were first asked to discuss what was important for teachers to understand in the domain of language form, then the domain of language content, and lastly the domain of language use. The researcher summarized the responses provided by the experts to each of these questions. Three of these experts provided in depth in person interviews which were audio taped, and one provided a general response to the question via e-mail.

Results

The informants' responses were reviewed by the researcher to find the areas each expert identified as essential for teachers to know in the domains of language form, content, and use. The commonly identified areas in each language domain were summarized and organized into separate tables.

Language Form

The informants were first asked to respond to the question: In the area of language form, what do you think is important for teachers to know? The participants' responses to this question are summarized in Table 1. Informant one identified two important areas for teachers to understand. The first area of importance was termed knowledge of phonology related terms by this informant. Informant one stated that concepts related to language and reading development are often confused and teachers need to know the difference between terms such as phoneme and phonological awareness and know the distinction between letter sounds, letter names, and blends. According to informant one, it was also important for teachers to have knowledge of how language works. When asked for a specific example, informant one stated that it is important for teachers to understand that when the structure or tense of a word is changed this can change the spelling of the word and its gender usage.

Table 1

Language Form: Identified Areas of Importance

Informant 1	Informant 2	Informant 3	Informant 4
Knowledge of phonology (i.e., related terms)			Knowledge of phonology
			Syntax (difference correct usage, grammar, and syntax; changing word order)
Concept of a word (not one to one correspondence in oral and written language) (i.e., sound-symbol correspondence)	Sentence structure (not a one to one correspondence in oral and written language) (i.e., sound-symbol correspondence)	Understanding phonic language system (make connections between phonic and graphic systems explicit for students)	
Knowledge of how language works (i.e., morphology – changing word tense)			Morphology (related to spelling; derived words, suffixes, and prefixes)
		Competent users of own language	
			Language development

Informant one stated understanding the concept of a word was the second area important for teachers to understand. A specific example provided by informant one was that it is important for teachers to know that there is not a one-to-one correspondence between oral language and written language. Informant one felt to further understand this concept the areas of phonology, syntax, and morphology have to be learned and acquired. When asked to clarify this statement, informant one stated that it is important for teachers to understand sound-symbol (phoneme/grapheme) correspondences in context. Informant one stated teachers typically teach phoneme-grapheme correspondences as if they follow hard and fast rules, then the exceptions to the rules are taught. Informant one went on to state that a teacher should teach the sounds of letters in context by encouraging students to find sound-letter combinations in text, and patterns of association should be taught from there.

Informant two identified one area as important for teachers to understand. This was sentence structure. When asked to provide a specific example, informant two stated that teachers need to not only have an understanding of syntax, derived words, prefixes, and suffixes, but it is also important for them to know reading is "not word perfect." That is, there is not a one-to-one correspondence between oral and written language.

Informant three identified two areas as important for teachers to understand. First, teachers need to understand what informant three termed the phonic language system. Informant three stated that teachers need to be able to make connections between the phonic system (speech sounds) and the graphic system (letters of the alphabet) explicit for their students. Second, informant three stated teachers should be competent users of their own language. An example given by informant three to clarify this statement was in relation to the domain of language form grammatical errors of usage should be absent from teachers' oral discourse.

Informant four identified four areas as important for teachers to understand in the domain of language form. First, informant four stated teachers need to have knowledge of phonology and need to talk about it in their classrooms because it connects to reading. When asked for a specific example, informant four stated teachers need to understand phoneme-grapheme correspondence. Second, informant four stated that it is important for teachers to understand syntax. According to informant four teachers need to know there is a difference between correct usage, grammar, and syntax. Informant four stated that teachers should specifically understand that changing the word order of a sentence can change the sentence's meaning. Third, informant four stated that it is important for teachers to understand the area of morphology. When asked for a specific example, informant four stated that teachers need to understand derived words. That is, teachers need to know the meaning of suffixes and prefixes, and how they are attached to words to change meaning. Fourth, informant four stated that teachers need to have knowledge of how language develops as a child grows, especially in the area of language form. According to informant four, most teachers do not have a basic understanding of language development and therefore may not know what understanding or use of language typical children in their classroom should be demonstrating.

Language Content

The informants were next asked to respond to the question: In the area of language content, what do you think is important for teachers to know? The participants' responses to this question are summarized in Table 2. Informant one identified three areas as important for teachers to understand in the domain of language content. The first area of importance identified by informant one was for teachers to study words to enrich the clarity and precision of the vocabulary they model and encourage their students to use in conversation. Informant one stated that, as teachers, we want students to be able to use language competently regardless of the context they are in. Informant one went on to state that teachers want students to use adjectives and adverbs to add texture or richness to their language and to increase the precision of what they are saying. When asked for a specific example, informant one stated that teachers could encourage students to think of a different adjective that could be used to describe a building, or use words to create a mood. In order to develop these skills informant one stated that teachers should be teaching children language to talk about their language or develop their metalinguistic skills. The second area of importance identified by informant one in the domain of language content was using context to determine word meaning and how a word is said. Informant one stated that how one says a word depends on how this word is used in context. For example, according to informant one, the word "house" could mean to put tools away or the dwelling where an individual lives. The word "wind" could refer to the blowing wind or the act of wrapping a string around a spool. These are multiple meaning words. The third area of importance identified by informant one was that teachers need to be able to make,

Table 2

Language Content: Identified Areas of Importance

Informant 1	Informant 2	Informant 3	Informant 4
Study words to enrich clarity and precision of vocabulary	Knowledge of vocabulary		Understand and use adjectives and adverbs; increase precision/richness of language
How to use context to determine the meaning of word and how the word said (multiple meaning words)	Literary language (idioms, similes, multiple meaning words)		Vocabulary learned in context (different meanings in different regions; multiple meaning words; idioms; metaphoric language)
Distinctions in oral language development (i.e., speaking, reading)			
	Main idea		
		Use variety of sources (dictionaries, thesaurus, etymological sources) efficiently and effectively	

what informant one termed, distinctions in oral language development or competency. Informant one stated that there are four different kinds of vocabulary: speaking, listening, reading, and writing. There is a different set of expectations about the development of each of these areas. Informant one stated it is assumed that if a student has been exposed to rich language development experiences, then the individual will be a better reader and writer. Informant one believed that this is not necessarily the case, and therefore, it is important for teachers to recognize that the emphasis and development in each of these areas changes over time as students move from the early elementary to upper elementary years.

Informant two identified three areas as important for teachers to understand in the domain of language content. First, informant two stated that knowledge of vocabulary is important for teachers to possess. Informant two stated teachers have to understand the meaning of language (semantics) so they are able to teach their students to understand words in different contexts, make predictions when reading, expand their vocabulary, and vary the vocabulary used with different audiences. Second, informant two stated that teachers need to understand and teach the meaning of literary language. Informant two believed this included topics such as story language, metaphors, idioms, and similes. Third, informant two stated that it is important for teachers to understand and teach the importance of discovering the main idea of reading selections.

In the domain of language content, informant three identified one area as important for teachers to understand. Informant three stated that teachers should be able to use a variety of sources (dictionaries, thesauruses, etymological sources) efficiently and effectively. According to informant three, teachers can not be expected to be these sources but they should be able to locate word meanings and origins in response to students' needs.

Informant four identified two areas as important for teachers to understand in the domain of language content. First, informant four stated that teachers need to increase their students' understanding and use of adjectives and adverbs. Informant four believed we do not use very rich or precise language when we speak (e.g., "I need that stuff"). Informant four went on to state that teachers need to increase the precision and richness of their own language and that of their students by understanding the importance of using interesting language when interacting with children. Second, informant four stated that teachers typically understand and teach their students about idioms and metaphoric language, but they need to expand their understanding of how to teach students vocabulary such as this in context. When asked to provide a specific example, informant four reported that there is a temptation to teach vocabulary in a structured, stilted, or decontextualized way. Teachers need to talk about unknown words as students encounter them in a conversation or when reading and show students how to use context to discover word meaning. Informant four also stated that teachers need to expose their students to multiple meaning words. When asked to clarify this statement, informant four stated that teachers need to show their students words have different meanings in different regions and in different contexts.

Language Use

Lastly, the informants were asked to respond to the question: In the area of language use, what do you think is important for teachers to know? The participants' responses are summarized in Table 3. Informant one identified two areas as important

Table 3

Language Use: Identified Areas of Importance

Informant 1	Informant 2	Informant 3	Informant 4
	Context (language use; turn taking, questioning, classroom talk, language scripts, language for different situations)	Aware of language registers and how change according to context	Awareness use of language (registers); language use in different cultures (i.e., eye contact, conversational pauses)
		Functions of language (Halliday) and encourage a variety of opportunities for students to use language for all functional purposes in the classroom	Halliday's functions of language (extent regulatory language used in the classroom)
Make distinction between comprehension and interpretation			
	Importance of story; story telling/narratives		
Inference (idea of schema; local versus global context)			
			Metalinguistic skills/knowledge

for teachers to understand. First, informant one stated teachers should be able to make the distinction between what the informant termed "comprehension and interpretation." When asked to expand on this statement, informant one stated that an individual may comprehend what has been said but may not know what it means. According to informant one, if someone said, "I really like Suzie," a listener will likely comprehend the sentence but may not know what it really means. Informant one reported that this statement may mean the speaker thought of Suzie as a good friend or was physically attracted to her. Other types of statements informant one felt that could be comprehended but not interpreted correctly included metaphors, personification, or literal versus figurative interpretations. Second, informant one stated that teachers need to understand the importance of inferential reasoning. Specifically, teachers should understand the idea of "local versus global context." Informant one stated that sometimes an individual's local knowledge can be debilitating. When asked to expand on the meaning of this statement, informant one stated that the individual may not have sophisticated understanding of an encountered word. An example given by informant one was a teacher preparing students to read a story by reviewing vocabulary words. The word "treasure" is one of the words the teacher and her students discuss, with the teacher having the students come up with ideas of what is a "treasure." Informant one stated these ideas are based on the students' local knowledge. However, in the story the "treasure" is not a physical object but a memory. According to informant one, in this example a more global context needs to be considered to understand the meaning of the term "treasure."

Informant two identified two areas as important for teachers to understand in the domain of language use. First, informant two identified the importance of context. Informant two reported this to include teachers being able to understand and encourage language use, turn taking, questioning, and classroom talk in dyads and small groups. Informant two also mentioned the importance of teachers utilizing language scripts or written dialogues in their classrooms to teach appropriate language use for different social situations. When asked for a specific example, informant two stated that students could be given a written dialogue between a child and an adult, and between a child and a peer to show students how they would interact differently with people of different ages or social statures in a social situation. Second, informant two discussed the importance of story and storytelling or narratives. Informant two reported there are a variety of story telling techniques from utilizing "once upon a time," to descriptions of reality (such as telling the story of a rock found on a walk) that teachers need to know about and incorporate into their classrooms. According to informant two teachers not only need to understand and teach their students the structure of a story, but also how to use language to reflect, internalize, and understand the content of the story. Informant two felt teachers need to understand the importance of encouraging children to read and putting their thoughts, ideas, and opinions into words.

In the domain of language use, informant three identified two areas as important for teachers to understand. First, teachers should be aware of language registers and how they change according to context. That is, "language use varies according to social norm, an aspect of language known as register" (Bainbridge & Malicky, 2000, p. 35). Second, informant three stated teachers should understand the functions of language, as described by Halliday (1973, 1975), and encourage a variety of opportunities for students to use language for all functional purposes in the classroom.

Informant four identified three areas as important for teachers to understand in the domain of language use. First, informant four stated that teachers need to be aware of the uses of language or language registers. Informant four stated that this includes understanding that language use differs in different cultures. For example, the importance of eye contact in conversation may differ from culture to culture as does utilizing "pauses" of different lengths in conversational interactions with others. The second area identified by informant four as important for teachers to understand in the domain of language function was Halliday's (1973, 1975) functions of language. Informant four stated that this includes making teachers more aware of the extent to which regulatory language is used in their classrooms. Third, informant four stated teachers need to expand their own metalinguistic knowledge and skills to ensure society does not lose the language to talk about language itself.

Areas of Importance and the Language Arts Curriculum

As stated in the *ELA Curriculum Framework*, it is important for teachers to have an understanding of language, since "students must be prepared to meet new literacy demands in Canada and the international community. The ability to use language effectively enhances students' opportunities to experience personal satisfaction and to become responsible, contributing citizens and lifelong learners" (Manitoba Education and Training, 1998, p. vii). It is important for teachers to develop students' listening and speaking skills since students:

> Use oral language to learn, solve problems, and reach goals. To become discerning, lifelong learners, students at all grades need to develop fluency and confidence in their oral language abilities. They benefit from many opportunities to listen and speak both informally and formally for a variety of purposes. (Manitoba Education and Training, 1998, p. 2)

The language areas identified by the language arts experts as important for teachers to know gave the researcher a general guideline as to what to include in the questionnaire. An assessment of the *ELA Curriculum Framework* (Manitoba Education and Training, 1998) was then made to determine the specific tasks teachers were expected to incorporate into their classrooms. The areas of oral language identified by at least two of the language arts experts and the specific tasks outlined in the *ELA Curriculum Framework* (Manitoba Education and Training, 1998) guided question selection, creation, and revision for the Oral Language Questionnaire.

In the domain of language form, aspects of oral language identified by at least two of the language arts experts as being important for teachers to understand included knowledge of phonology (e.g., phonology related terms), understanding sound-symbol correspondence, and knowledge of morphology (e.g., suffixes, prefixes, derived words). These aspects of language form are addressed in the second general outcome targetted in the *ELA Curriculum Framework* (Manitoba Education and Training, 1998). This general outcome stated that by the end of the year "students will listen, speak, read, write, view, and represent to comprehend and respond personally and critically to oral, print, and other media texts" (Manitoba Education and Training, 1998, p. 19). In order to meet this specific outcome, the knowledge and/or skills students at the Grade 1 level were expected to demonstrate included being able to differentiate between letters and words, and use sound-letter relationships to identify initial and final consonants, and letter clusters. In Grade 2, additional skills required to achieve this outcome included utilizing sound-symbol relationships to identify blends, digraphs, vowels, and familiar and unfamiliar words. In Grade 3, students were expected to be able to use structural analysis to identify prefixes, suffixes, compound words, contractions, and singular and plural words (Manitoba Education and Training, 1998).

General outcome four in the *ELA Curriculum Framework* stated that, "students will listen, speak, read, write, view, and represent to enhance the clarity and artistry of communication" (Manitoba Education and Training, 1998, p. 47). Prerequisite skills to achieving this outcome related to students having an understanding of sound-symbol correspondence, one of the areas identified by language arts experts as important for teachers to understand. For example, to develop early elementary students' abilities to attend to conversations the *ELA Curriculum Framework* stated that Kindergarten students must first be able to connect sounds with letters in words, and Grade 1 students must be able to use sound-symbol relationships and visual memory to spell familiar words (Manitoba Education and Training, 1998). Therefore, specific tasks teachers were expected to incorporate into their classrooms to address the domain of language form included differentiating between letters and words, using sound-letter relationships to identify single consonants, vowels, and letter clusters, and using structural analysis to identify parts of words (e.g., prefixes, suffixes).

In the domain of language content, using context to determine the meaning of words (e.g., idioms, multiple meaning words) and understanding and promoting the clarity and precision of vocabulary were identified by at least two of the language arts experts as aspects of language important for teachers to know. These aspects of language content were also addressed in the second general outcome targetted in the *ELA Curriculum Framework* which stated that "students will listen, speak, read, write, view, and represent to comprehend and respond personally and critically to oral, print, and other media texts" (Manitoba Education and Training, 1998, p. 19). In the area of vocabulary Kindergarten students were expected to "demonstrate curiosity about and experiment with letters, sounds, words and word patterns" to achieve the second general outcome (Manitoba Education and Training, 1998, p. 28). In Grade 1, students were expected to demonstrate the ability to experiment with parts of words, combinations of words, and word patterns, while in Grade 2 students used their "knowledge of commonalities in word families to increase vocabulary in a variety of contexts" (Manitoba Education and Training, 1998, p. 28). These skills laid the foundation for expanding students' knowledge of words, word forms, and multiple meaning words in the middle years. Students' understanding of words and word forms can also be related to general outcome three which stated "students will listen, speak, read, write, view, and represent to manage ideas and information" (Manitoba Education and Training, 1998, p. 33). Prerequisite skills students in the early elementary years were expected to achieve to meet this third general outcome included being able to use many different strategies to sort information and ideas that were related. These strategies could include sequencing events in a logical order or linking significant details (Manitoba Education and Training, 1998). It also included organizing and explaining ideas and information utilizing skills such as clustering, categorizing, and sequencing (Manitoba Education and Training, 1998). These ideas can be represented in some type of semantic web or hierarchical organization to assist students in organizing concepts and terms related to the topic or term under discussion. Therefore, specific tasks teachers were expected to incorporate into their classrooms to address the domain of language content included tasks encouraging vocabulary development such as experimentation with parts of words, combinations of words, and word patterns, tasks promoting the understanding of commonalities in word families, and tasks requiring students to use strategies to sort related information and ideas.

In the domain of language use, teacher knowledge of language registers, how language registers change according to context, and the functions of language were identified by at least two of the language arts experts as aspects of language important for teachers to know. The fifth general outcome outlined by the *ELA Curriculum Framework* was that "students will listen, speak, read, write, view, and represent to celebrate and build community" (Manitoba Education and Training, 1998, p. 65). In order to meet this general outcome, students in the early elementary years need to be able to use language to show respect. In Kindergarten, students need to be able to "recognize variations in language use at home, on the playground, and in the classroom" (Manitoba Education and Training, 1998, p. 66). In Grade 1, students need to be able to "recognize that individuals adjust [their] language use according to the situation" (Manitoba Education and Training, 1998, p. 66). Grade 2 students need to be able to "adjust [their] own language use for different situations" (Manitoba Education and Training, 1998, p. 66), while in Grade 3 students need to "show consideration for those whose ideas, abilities, and language use differ from [their] own" (Manitoba Education and Training, 1998, p. 66). These abilities also relate to the other area the experts identified as important, understanding the functions or uses of language as outlined by Halliday (1973, 1975). The *Saskatchewan Language Arts Curriculum Guide for The Elementary Level* (Saskatchewan Education, 2002) directly referred to the importance of students being able to understand and use language for a variety of purposes, listing and describing Halliday's (1973, 1975) functions of language. Therefore, specific tasks teachers were expected to incorporate into their classrooms to address the domain of language use included tasks that aided students in recognizing variations in language use, recognizing individuals adjust the language they use according to the situation, and tasks that aid students in understanding the functions or uses of language.

Questionnaire Development: Draft One

The areas of importance identified by at least two of the language arts experts guided the assessment of the *ELA Curriculum Framework* (Manitoba Education and Training, 1998). The specific tasks identified in this framework that teachers were expected to incorporate into their classrooms guided the creation, selection, and revision of questions to incorporate into the Oral Language Questionnaire. The three domains of language represented in the questionnaire included language form, content, and use. Questions were directly taken from a variety of sources, modified from sources, and/or developed to represent the three domains of language in the first draft of the Oral Language Questionnaire.

Identifying Behaviours to Represent the Construct

The researcher engaged in two activities "to broaden, refine, or verify the view of the construct to be measured" (Crocker & Algina, 1986, p. 68). First, research in the areas of language form, content, and use was reviewed. As Crocker and Algina (1986) stated "those behaviours that have been most frequently studied by others are used to define the construct of interest. The test developer may use an eclectic approach or select the work of one particular theorist in specifying behavioural categories to be represented by test items" (p. 68). In this project, research from a variety of sources was reviewed. Aspects of oral language found to be important for students, and therefore, for teachers to understand in the domain of language form included phonological processing skills. This included phonological awareness, phonological retrieval, and phonological memory skills. In the domain of language content, vocabulary knowledge was found to be important to understand. This included knowledge of relational words, word associations, figurative language, and multiple meaning words. In the domain of language use, areas found to be important for students and, therefore, for teachers to understand included communication intentions, conversational abilities, and narrative skills. The literature review of these language areas can be found in Chapter 2.

Second, the researcher consulted experts in the area of language arts to pinpoint the areas of oral language important for teachers to understand. Messick (1995) stated that, "a key issue for the content aspect of construct validity is the specification of the boundaries of the construct domain to be assessed – that is determining the knowledge, skills, and other attributes to be revealed by the assessment tasks" (p. 6). In this study, the knowledge and skills important for teachers to possess in the domains of oral language form, content, and use were initially identified by four experts from the field of language arts. An assessment of the *ELA Curriculum Framework* (Manitoba Education and Training, 1998) was then made in order to determine specific tasks elementary teachers were expected to incorporate into their classrooms relating to the identified aspects of oral language. Questions were then found, modified, and/or created to represent the identified areas of oral language form (phonology, morphology, syntax), content (semantics), and use (pragmatics) (Bainbridge & Malicky, 2000; Fromkin et al., 1997; Halliday, 1973, 1975; Moats, 1994, 2000; Parker, 1986).

Language Form

Areas of importance identified by the language arts experts and also incorporated into the *ELA Curriculum Framework* (Manitoba Education and Training, 1998) in the area of oral language form included knowledge of phonology (e.g., phonology related terms), knowledge of syntax (e.g., grammar, changing word order), understanding sound-symbol correspondence, and knowledge of morphology (e.g., suffixes, prefixes, derived words). Questions representing the areas of syntax, phonology, and morphology were drawn from Moats' (1994) survey and her book (Moats, 2000) on language essentials for teachers. Moats (1994, 2000) developed several informal language surveys examining teachers' knowledge of language form or structure. However, an attempt had never been made to undertake reliability and validity analyses on these surveys (L.C. Moats, personal communication, July 21, 2001).

Seven questions in this initial draft of the questionnaire represented the domain of oral language form. Questions 10 and 11 dealt with sound-symbol correspondences. In these questions respondents were asked to identify the speech sounds or phonemes in each of the provided words (Moats, 1994). Questions 2 and 3 asked respondents to identify the morphemes (free and bound) in the provided words (Moats, 2000). Question 6 asked respondents to identify the syllables and morphemes in the provided words, while questions 7 and 13 asked respondents to examine the presented words and identify the consonant blends and consonant digraphs, respectively (Moats, 1994).

Language Content

In the area of oral language content, areas of importance identified by the language arts experts and also incorporated into the *ELA Curriculum Framework* (Manitoba Education and Training, 1998) included encouraging vocabulary development by using context to determine the meaning of words (i.e., idioms, multiple meaning words), understanding and promoting the clarity and precision of vocabulary, and requiring students to use strategies to sort related information and ideas. Questions representing the area of semantics were adapted from questions found in Fromkin et al.'s (1997) introducory linguistics text, Moats' (2000) book on language essentials for teachers, and Parkers (1986) book on linguistics. Four questions in the initial draft of the questionnaire represented the area of oral language content. Questions 5 and 12, which dealt with mutiple meaning words and multiple meaning sentences, were adapted from questions found in Fromkin et al. (1997). In question 9 respondents were asked to provide the literal and figurative interpretations for a number of idioms. This question was a compilation of idioms found in three sources (Fromkin et al., 1997; Moats, 2000; Parker, 1986). Question 1, in which respondents were asked to categorize a group of related words, was a modified version of a question found in Moats (2000).

Language Use

Areas of importance identified by the language arts experts and incorporated into the *ELA Curriculum Framework* (Manitoba Education and Training, 1998) in the domain of oral language use included teacher knowledge of language registers, how language registers change according to context, and the functions of language. Two questions in this initial draft of the questionnaire represented the domain of oral language use. Question 4 looked at knowledge of language registers, while question 8 was concerned with respondents' knowledge of language functions. The researcher designed these questions based on information provided in Bainbridge and Malicky (2000) and Halliday (1973, 1975).

Questionnaire Structure

Questions representing each language domain were not placed in sequential order in the questionnaire. In order to reduce response bias (e.g., fatigue), an attempt was made to have items from each language domain and of varying levels of assumed difficulty (easy, moderate, more difficult) dispersed throughout the questionnaire. Therefore, question 1 represented the domain of language content and was perceived by the researcher to be a relatively easy task to complete. Questions 2 and 3 represented the domain of language form and were perceived to be more difficult questions to complete. Question 4 represented the domain of language use and was perceived by the researcher to be a relatively easy question to complete. Question 5 represented the domain of language content and was perceived to be of moderate difficulty. Questions 6 and 7 represented the domain of language form and were perceived by the researcher to be more difficult to complete. Question 8 represented the domain of language use and was perceived to be of moderate difficulty. Question 9 represented the domain of language content and was perceived by the researcher to be of moderate difficulty. Questions 10 and 11 represented the domain of language form and were perceived to be items that may be more difficult to complete. Question 12 represented the domain of language content and was perceived to be of moderate difficulty. Question 13 represented the domain of language form and was perceived by the researcher to be an item that may be more difficult to complete.

This draft of the questionnaire contained seven questions which represented the domain of language form, four questions which represented the domain of language content, and two questions which represented the domain of language use. A copy of the initial draft of the questionnaire and its answer key are provided in Appendix A.

Discussion

In the three language domains, some of the areas of oral language mentioned by the language arts experts were not incorporated into the questionnaire. As previously stated, aspects of oral language that were mentioned by at least two of the four language arts experts that could be directly tied to the *ELA Curriculum Framework* (Manitoba Education, 1998) were considered to be areas of importance. Aspects of oral language that were only mentioned once by the language arts experts may have corresponded to areas of the *ELA Curriculum Framework* (Manitoba Education, 1998), but they were not incorporated into the questionnaire. Areas relating to the domain of language form, mentioned only once by language arts experts, included teachers knowing the difference between correct usage, grammar, and syntax, being competent users of their own language, and understanding language development. Three oral language areas in the domain of language content were not incorporated into the questionnaire. These areas included discovering the main idea in reading selections, demonstrating understanding of the different kinds of vocabulary (listening, speaking, reading, and writing), and being able to use a variety of sources (e.g., dictionaries, thesauruses) efficiently and effectively. In the domain of language use, areas of oral language mentioned only once by the language arts experts that were not incorporated into the questionnaire included inferential reasoning, story telling techniques, and making a distinction between comprehension and interpretation. One expert also felt it was important for teachers expand their metalinguistic knowledge and/or skills.

After developing the first draft of the questionnaire, it was then necessary to have the resulting questionnaire reviewed and judged by a panel who possessed expertise in the area of language arts to begin the process of collecting validity evidence.

CHAPTER 4: PANEL REVIEW

Cronbach (1971) defined validation as "the process of examining the accuracy of a specific prediction or inference made from a test score" (p. 443). Depending on the types of inferences being made from the scores on the test, a variety of complementary methods of validation can be utilized. These methods include analyzing "the content of a test in relation to the content of the domain of reference," probing "the ways in which examinees respond to the items, questions, or tasks included in the test," examining "relationships among responses to tasks, items, or parts of the test," "investigating differences in the test processes and structures," and tracing "the social consequences of interpreting and using the test scores in particular ways" (Rogers, 1999, p. 147). In this case, the purpose of constructing the Oral Language Questionnaire was to find or create questions that could be used to assess teachers' knowledge of three different aspects of oral language (language form, content, and use). Crocker and Algina (1986) stated that, "the purpose of a content validation study is to assess whether the items adequately represent a performance domain or construct of specific interest" (p. 218). In order to complete such an analysis, "a typical procedure is to have a panel of independent experts (other than the item writers) judge whether the items adequately sample the domain of interest" (Crocker & Algina, 1986, p. 218).

In this portion of the study, language arts experts from across Canada were asked to help complete a content analysis of the questionnaire by reviewing the questionnaire, and rating the fit between each questionnaire item and the domains of language being measured (language form, content, and use). The information provided by this panel of judges was used to refine the questionnaire and move toward creating a finalized version to be used in the field-testing phase of this study.

Method and Procedures

Instrument

The first draft of the Oral Language Questionnaire, presented in Appendix A, was used in this stage of the study. Each question in this questionnaire was made up of several parts. These question parts will be referred to as items.

Participants

Forty-seven language arts professors from 16 Canadian universities, identified by their listed areas of interest (curriculum and pedagogy in listening and speaking, reading and writing, and/or viewing and representing) on their university websites, were approached by e-mail and asked if they were interested in participating as content validation judges for the first draft of the Oral Language Questionnaire. Of the 47 language arts professors who were asked to participate, 23 professors (48.9%) from 12 universities agreed and were subsequently hand delivered or mailed the questionnaires and rating packages to complete. Of the 23, 18 judges (78.3%) returned their rating packages for analysis within the specified time limit. In order to ensure the judges' anonymity, their names were removed and replaced with a code number prior to analysis. All feedback obtained from these participants was only identifiable by a code number and not by name.

Prospective content validation judges were identified by the descriptions of their areas of specialty or expertise on their university websites. These descriptions may not have been written by the individual and therefore may not describe her/his areas of expertise appropriately. The terminology used to describe the various language arts varies across universities. Therefore, the areas of expertise may have been described inconsistently. It is also possible that other potential judges may not have been identified by the researcher since not every faculty member has a description of their areas of research interest or expertise posted on their university websites. These issues would have been a concern if a small number of judges from a small geographic area had been used as experts in this portion of the study. However, there was a high response rate from judges that agreed to participate (18 out of 23 responded or 78%), and these judges were from across the country.

Judges were asked to respond to three background information questions that were included on the consent form. These questions included listing the type of doctoral degree they possessed and their area of specialization (e.g., Ph.D. in Language and Literacy Education, Ed.D. in Elementary Education), the number of years of university teaching experience they possessed in the area of language arts, and the number of years they had been employed at the university level. Judges' experience teaching in the area of language arts at the university level ranged from 5 to 33 years, while their years of employment at the university level ranged from 3 to 30 years (see Table 4). The discrepancy between experience teaching in the language arts and years of university employment is likely due to judges having teaching experience at the university level prior to their faculty appointments.

Data Collection

Judges were given an information letter that provided explanations of the reasons the tool was being developed, the population that would be surveyed utilizing

Table 4

Content Area Judges' Background Information

Judge	Doctoral degree	Years university language arts experience	Years university employment
1	Ed. D. 1	22	22
2	Ph. D. 1	5	3
3	Ph. D. 1	13	13
4	Ph. D. 2	24	24
5	Ph. D. 3	10	10
6	Ph.D. 6	30	30
7	Ph. D. 4	21	21
8	Ph.D. 1 / 2	15	15
9	Ph. D. 5	7	5
10	Ph.D. 7	33	25
11	Ph.D. 4	25	30
12	Ph.D. 1	18	18
13	Ph.D. 7	12	12
14	Ph.D. 7	11	11
15	Ph.D. 2 / 8	8	8
16	Ed.D. 2	12	3
17	Ph. D. 2	20	20
18	Ph.D. 8	27	27

Note. Ed.D. 1 = Elementary Education; Ed.D. 2 = Special Education; Ph.D. 1 = Language and Literacy Education; Ph.D. 2 = Education, Curriculum and Instruction; Ph.D. 3 = Secondary Education; Ph.D. 4 = Reading; Ph.D. 5 = Language Acquisition; Ph.D. 6 = Linguistics; Ph.D. 7 = Elementary Education/Language Arts; Ph.D. 8 = Education.

this questionnaire, and a summary of the tasks involved in this portion of the study (Rogers, 1999). Judges were also provided a written consent form, a page of directions walking them through the tasks to be completed, written definitions of the three language domains being measured to ensure domain clarity (Fitzpatrick, 1983), and coding sheets on which to rate the fit of each item to each of the three language domains. A copy of the consent form is provided in Appendix B, and copies of the forms given to the panel of judges are given in Appendix C.

The content analysis of the questionnaire involved the judges completing three tasks. Each task was placed in a sealed envelope to help ensure that every judge followed the same procedure. First, judges were asked to open envelope one and respond to each of the items in the questionnaire in the absence of an answer key (Rogers, 1999). Once this had been completed, judges were asked to open envelope two and evaluate their responses to the questionnaire items with a provided answer key (Rogers, 1999). Throughout this process, judges were asked to note any comments they had. This included comments regarding item answers, the readability of items, or suggestions for revisions. Envelope three contained a summary of the identified areas of importance (content specifications) of each language domain, definitions of each language domain (Owens, 1992), and a review sheet for judges to rate the fit between each item and each language domain being measured (language form, content, and use). Judges were asked to indicate how relevant each item in the questionnaire was to each language domain (Rogers, 1999). In order to complete this task, judges were asked to refer to the language domain definitions and the identified areas of importance in each language domain. Judges were not informed as to the language domain each question represented (judges were blind to which language domain a question was set to measure). For each item, the degree of fit between the item and its domain of reference was measured utilizing a five-point rating scale. On this scale a rating of zero equalled *no fit*, one equalled *minimal fit*, two equalled *fair fit*, three equalled *good fit*, while four equalled *excellent fit*.

Once all of the tasks had been completed, judges were asked to place their signed consent form and all of the information from the three envelopes in the provided pre-paid self-addressed envelope and return it to the researcher. Judges were requested to complete and return the information within a two-week time period from the mailing date. A written reminder to complete and return the rating package was e-mailed to judges three weeks after the original mailing date. All rating packages returned within the two-month period following the initial mailing date were used in the analysis.

Results

Two steps were involved in the content analysis of the questionnaire, examining interjudge agreement or the discrepancy of the judges' ratings from the median value of each item in the questionnaire, and examining the degree of item fit or item relevance (Rogers, 1999).

Discrepancy of Judges' Ratings from the Median

In step one, the discrepancy of each judge's ratings from the median value of each item in the questionnaire was examined to determine the level of agreement among the judges (see Table 5). Following judges' rating the fit or degree of match between each item and the domain being measured, "the mean or median rating for each item is

Table 5

Summary Statistics of Judges' Discrepancy From Median

Judge	JDM	JDP
6	2.5	4.0
13	7.5	6.0
18	11.5	13.0
2	12.5	14.0
7	14.5	16.0
3	15.5	17.0
5	19.5	18.0
12	19.5	18.0
16	19.5	18.0
10	21.5	23.0
4	22.5	21.0
17	22.5	21.0
14	25.5	24.0
11	26.5	26.0
15	28.5	30.0
8	29.5	31.0
1	39.5	-
9	42.5	-

Note. JDM = Judges' Discrepancy From the Median (Judges 1 –18); JDP = Judges' Discrepancy From the Median (Judges 1 and 9 Removed); Values represent the summation score of each judge's discrepancy from the median for each item in the questionnaire. Dash (-) indicates aberrant judges that were removed.

then computed across judges to indicate the overall degree of match between item and objective" (Crocker & Algina, 1986, p. 219). The median was utilized as the measure of central tendency in this analysis since it would not be adversely affected by extreme scores or ratings as would other measures of central tendency (Rogers, 1999). A summary statistic was then used to judge the discrepancy of the judges' ratings for each item from the median. These discrepancy measures were used to assess interjudge agreement. The ideal outcome would be for each judge's discrepancy from the median to be zero (Rogers, 1999). This would indicate that a judge's rating of fit for each item was similar to the ratings of the other judges. This value was calculated using the following formula:

$$JDM_j = \sum_{k=1}^{k} \left| X_{kj} - Md_k \right|,$$

where JDM_j is judge j's discrepancy from the median, X_{kj} is the rating given by judge j to item k, Md_k is the median of the ratings given by j judges to item k, k is the number of items, and $\left| X_{kj} - Md_k \right|$ is the absolute value between the rating given by judge j to item k and the median of the ratings given by j judges to item k (Rogers, 1999).

The discrepancy from the median scores for the 18 judges ranged from 2.5 to 42.5. Two judges, judges 1 and 9, were different from the other judges (aberrant judges). The discrepancy from the median score for Judge 1 was 39.5 and 42.5 for Judge 9. These scores exceeded the discrepancy from the median score of the next most discrepant judge by a value of ten ($\text{JDM}_8 = 29.5$). All of the other differences between the scores of adjacent judges were less than or equal to a value of five. The differences between the ratings provided by judges 1 and 9 and the ratings of the rest of the judges did not appear to be systematic. That is, the differences in judges' ratings appeared to be random differences and not influenced by a specific source that caused these judges to respond differently from the other judges. Judges 1 and 9 may not have understood the task, may not have been knowledgeable about the content of the specific items, or may have had difficulty differentiating between items that were referenced to the domains of language content and use. Therefore, the ratings judges 1 and 9 provided for the fit of questionnaire items to the domains of language form, content, and use were removed prior to completing further analyses.

After the removal of these two judges, the discrepancy from the median scores for the remaining 16 judges ranged from 4.0 to 31.0. The range of scores changed because removing the ratings of judges 1 and 9 changed the calculated median for each questionnaire item. This in turn changed each judge's discrepancy from the median score.

Item Relevance

Following the removal of judges 1 and 9 from the analysis, step two involved looking at item fit or item relevance. First, the degree of ambiguity among judges' ratings or the range for the item was computed:

$$R_k = {}_hX_{kj} - {}_lX_{kj'} + 1,$$

where R_k is the range of the ratings for item *k*, ${}_hX_{kj}$ is the highest rating for item *k* given by judge *j*, while ${}_lX_{kj'}$ is the lowest rating for item *k* given by judge *j'* (Rogers, 1999). Second, each item's central tendency (median) was examined to investigate whether judges felt there was a fit between the item and the objective to which it was referenced (Rogers, 1999). All of the items in questions 2, 3, 6, 7, 10, 11, and 13 were referenced to the domain of language form. All of the items in questions 1, 5, 9, and 12 were referenced to the domain of language content, and all of the items in questions 4 and 8 were referenced to the domain of language use. Summaries of the judges' ratings of the fit between each item and the three language domains are provided in Appendix D.

Item ambiguity calculations were first made utilizing judges' ratings of fit for items in the domains to which they were referenced (see Table 6). Ideally one would want the value of R to be 1, since it is desirable to have no variability in the range of the ratings for an item (Rogers, 1999). That is, one wants the ratings of the panel of experts to be similar. These similar ratings would indicate that the highest and lowest ratings judges had given an item were the same (e.g., each had given the item a rating of 4). Possible item ambiguity values ranged from 1 to 5. An ambiguity value of 3.0, the middle of the range, was set as an acceptable value for an item. Item ambiguity calculations were then made utilizing judges' ratings of fit for items in the language domains to which they were not referenced (see Table 6). Ideally one would want the item ambiguity or R values for questions to be lower, and the calculated medians lower, in the domains to which the items were not referenced. These values would indicate that the question under consideration had been rated to best fit in the domain of language to which it was referenced.

Language Form

Questions 2, 3, 6, 7, 10, 11, and 13 were set to represent the domain of language form. Item ambiguity calculations were first made utilizing judges' ratings of fit for items in these questions when referenced to the domain of language form.

Table 6

Summary Statistics of 16 Judges' Ratings

Item	Language form	Language content	Language use
2	**4.0 (2.0)**	0.5 (5.0)	0.0 (3.0)
3	**4.0 (2.0)**	0.5 (5.0)	0.0 (2.0)
6	**4.0 (3.0)**	1.0 (5.0)	0.0 (5.0)
7	**4.0 (3.0)**	0.0 (5.0)	0.0 (3.0)
10	**4.0 (5.0)**	0.0 (2.0)	0.0 (2.0)
11	**4.0 (4.0)**	0.0 (4.0)	0.0 (2.0)
13	**4.0 (4.0)**	0.0 (2.0)	0.0 (2.0)
1a	0.0 (5.0)	**4.0 (3.0)**	1.0 (5.0)
1b	0.0 (5.0)	**4.0 (3.0)**	1.0 (3.0)
1c	0.0 (5.0)	**4.0 (5.0)**	1.0 (5.0)
5a	0.0 (5.0)	**3.5 (5.0)**	2.0 (5.0)
5b	0.0 (5.0)	**3.5 (5.0)**	2.0 (5.0)
5c	0.0 (5.0)	**3.5 (5.0)**	2.0 (5.0)
5d	0.0 (5.0)	**3.5 (5.0)**	2.5 (5.0)
5e	0.0 (5.0)	**3.0 (5.0)**	2.0 (5.0)
9a	0.0 (4.0)	**3.0 (5.0)**	3.0 (5.0)
9b	0.0 (4.0)	**3.0 (5.0)**	3.0 (5.0)
9c	0.0 (4.0)	**3.0 (5.0)**	3.0 (5.0)
9d	0.0 (4.0)	**3.0 (5.0)**	3.0 (5.0)
9e	0.0 (4.0)	**3.0 (5.0)**	3.0 (5.0)

Table 6

Summary Statistics of 16 Judges' Ratings Continued

Item	Language form	Language content	Language use
9f	0.0 (4.0)	**3.0 (5.0)**	3.0 (5.0)
9g	0.0 (4.0)	**3.0 (5.0)**	3.0 (5.0)
9h	0.0 (4.0)	**3.0 (5.0)**	3.0 (5.0)
12a	0.0 (5.0)	**3.0 (5.0)**	2.0 (5.0)
12b	0.0 (3.0)	**3.0 (5.0)**	2.0 (5.0)
12c	0.0 (3.0)	**3.5 (5.0)**	2.0 (5.0)
12d	0.0 (5.0)	**3.0 (5.0)**	2.0 (5.0)
4a	0.0 (2.0)	1.5 (4.0)	**4.0 (2.0)**
4b	0.0 (2.0)	1.5 (4.0)	**4.0 (3.0)**
8a	0.0 (2.0)	2.0 (5.0)	**4.0 (2.0)**
8b	0.0 (2.0)	2.0 (4.0)	**4.0 (2.0)**
8c	0.0 (2.0)	2.0 (5.0)	**4.0 (2.0)**
8d	0.0 (2.0)	2.0 (5.0)	**4.0 (3.0)**
8e	0.0 (2.0)	2.0 (5.0)	**4.0 (2.0)**
8f	0.0 (2.0)	2.0 (5.0)	**4.0 (2.0)**
8g	0.0 (2.0)	2.0 (5.0)	**4.0 (2.0)**
8h	0.0 (2.0)	2.0 (5.0)	**4.0 (2.0)**
8i	0.0 (2.0)	2.0 (5.0)	**4.0 (2.0)**
8j	0.0 (2.0)	2.0 (5.0)	**4.0 (2.0)**

Note. Median values and range given for each item (range in parentheses). Values in bold represent summary statistics for the domain to which items were referenced.

Questions 2 and 3 were found to have low ambiguity (2.0 or below) and high median values (4.0). The low R values indicated that these judges tended to rate the items in these questions similarly. The high median values indicated judges felt the items possessed "excellent fit" to the domain to which they were referenced.

The values of R were acceptable (3.0) for questions 6 and 7. The median values for these questions were also high (4.0). The high median values indicated the midpoint of judges' ratings for these items was a high value. The items in these questions were also rated to best fit under the domain of language form.

Questions 10, 11, and 13 had R values that were not acceptable. Question 10 had a R value of 5.0. Questions 11 and 13 had R values of 4.0. However, the median value of 4.0 was found for questions 10, 11, and 13. For question 10 the R value of 5.0 was likely due to the rating of zero given by judge 11. This judge seemed to misunderstand the directions when rating this question. Instead of considering how well question 10 fit into a language domain when providing the zero rating, this judge commented it was a question teachers did not need to understand and seemed to rate it based on this opinion. Judge 11 made the same comment when rating questions 11 and 13, both of which had R values of 4.0.

Item ambiguity calculations were also made utilizing judges' ratings of fit for items in the language domains to which they were not referenced. The R values for questions 2 and 6 were higher, and the calculated medians lower, in the domains of language content and use. These items were not rated by judges to fit well in the domains of language content and use. Specifically, questions 2 and 6 were rated to best fit in the domain of language form.

The R values for questions 3, 7, 10, 11, and 13 were equal to or less than the values calculated for the domain to which each item was referenced. However, the calculated median values were lower for these items in the language domains to which they were not referenced. That is, the midpoint of the ratings for each of these items was low. One or two judges may have provided a high rating under the language domain which would have resulted in a higher R value, but the majority of the judges' ratings were low. This can be confirmed by looking at the individual ratings provided by judges for these items (see Appendix D), and when considering the item ambiguity ratings for these items across the language domains (Table 6). Therefore, questions 3, 7, 10, 11, and 13 were rated by judges to best fit in the domain of language form.

Language Content

Questions 1, 5, 9, and 12 were set to represent the domain of language content. Item ambiguity calculations were first made utilizing judges' ratings of fit for the items in these questions when referenced to the domain of language content. None of the question items in the domain of language content were found to have low ambiguity (R values of 2.0 or less). The values of R were acceptable (3.0) for question items 1a and b. The median values for these items were high (4.0). These items were rated to best fit under the domain of language content.

Question items 1c, 5a to e, 9a to h, and 12a to d had R values that were not acceptable as demonstrated by high R values (R values of 5.0). A median value of 4.0 was found for item 1c. Items 5a to d and 12c had median values of 3.5, while items 5e, 9a to h, 12a, 12b, and 12d had median values of 3.0. For item 1c, the R value of 5.0 was likely due to judge 17, who judged this item to best fit in the domain of language use (rating of four) rather than language content (rating of zero). Items 12a to d had item ambiguity values of 5.0. Judges 11 and 17 gave item 12a a rating of zero. Judge 11 gave this item a rating of one in the domain of language form, and did not provide written comments to explain the rating. Judge 17 again rated this item, as well as the remaining items in question 12, to best fit in the domain of language use (ratings of four) rather than the domain of language content (ratings of zero).

Other items that the judges rated to best fit under language domains other than the one intended included items 5a to e (R values of 5.0), and items 9a to h (R values of 5.0). For example, judge 10 rated items 5a to e as fitting under the domain of language use (ratings of four) rather than the domain of language content (ratings of one). Judge 8 rated items 9a to h as fitting under the domain of language use (ratings of four) rather than language content (ratings of zero), while judge 6 rated the items to best fit under domain of language form (ratings of 3) rather than language content (ratings of zero). In order to determine whether these items best fit under the language domains they were set to measure, one must consider the ratings judges gave these items when referencing them to the language domains to which they were not referenced.

The R values for item 1a were higher, and the calculated medians lower, in the domains of language form and use. A higher R value indicated judges' ratings were more heterogeneous. A lower median value indicated the midpoint of the ratings for this item was a lower value on the rating scale (indicating no or minimal fit of items to the domain). The higher R value and the lower value of the median, when referencing this item to the language domains the item was not set to measure, indicated that item 1a was rated to best fit under the language domain of content.

The R values for items 1b and c, 5a to e, and 12a to d were equal to or less than the values calculated for the domain to which each item was referenced. However, the calculated median values were lower for these items in the language domains to which they were not referenced. That is, the midpoint of the ratings for each of these items was low. For example, item 5e was referenced to the domain of language content (R value 5.0, median 3.0). Ratings provided by judges were typically higher in the domain of language content. Although the R values for item 5e were similar for the domains of language form and use (R value of 5.0), the calculated median values for the item were lower. The median value of items when referenced to language domain of form was 0.0, and 2.0 when referenced to the domain of language use. This indicated the ratings of fit provided by judges for this item in the domains of language form and use were typically low. This means item 5e was rated by judges to best fit in the domain of language content. Although items 5a to e and 12a to d, which were referenced to the domain of language content, also had high R values (R values of 5.0), the median values were lower when these items were referenced to the domains of language form and content. Therefore, items 1b and c, 5a to e, and 12a to d were rated by judges to best fit in the domain of language content.

The R values and median values for items 9a to h when referenced to the domain of language use were equal to the values calculated when referencing the items to the domain of language content (R values of 5.0, median values of 3.0). Judges 4, 5, 10, 11, and 18 rated items 9a to h to best fit under the domain of language content. Judges 2, 8, 12, 14, and 16 rated the items to best fit under the domain of language use. Judges 3, 7, 13, 15, and 17 rated the items 9a to h to fit well under both the domains of language content and use. Judge 6 rated this set of items to best fit under the domain of language form. There was not agreement among the judges as to which domain items 9a to h best fit under.

Language Use

Questions 4 and 8 were set to measure the domain of language use. The item ambiguity calculations were first made utilizing judges' ratings of fit for the items in these questions when referenced to the domain of language use. Items 4a, 8a to c, and 8e to j were found to have low ambiguity (2.0 or below) and high median values (4.0). The values of R were acceptable (3.0) for items 4b and 8d. The median values for these items were high (4.0). These items were rated to best fit in the domain of language use.

Item ambiguity calculations were also made utilizing judges' ratings of fit for items in the language domains to which they were not referenced. The R values for items 4a and b, and 8a to j were equal to or less than the values calculated for the domain to which each item was referenced. However, the calculated median values were lower for these items in the language domains to which they were not referenced. One or two judges may have provided a high rating under the language domain which would have resulted in a higher R value, but the majority of the judges' ratings were low. Therefore, items 4a and b, and 8a to j were rated to best fit in the domain of language use.

After eliminating the ratings of judges 1 and 9, 16 judges remained in the analyses. Item ambiguity calculations were made utilizing judges' ratings of fit for items in the domains to which they were referenced, and for items in the language domains to which they were not referenced. The majority of the judges indicated that the questionnaire items fit under the domains of language they were set to measure, with the exception of items 9a to h. The 16 judges had differing opinions as to whether items 9a to h best fit in the domain of language content or language use. This item was not removed from the questionnaire at this point, but its inclusion in the questionnaire was reviewed following item analyses.

In this portion of the study, the ratings and written feedback provided by judges' were outlined. In the next section, this information was reviewed and used to make revisions to create the second draft of the Oral Language Questionnaire.

Questionnaire Revision: Draft Two

Revisions made to the first version of the questionnaire were based on the judges' ratings and written feedback. As Rogers (1999) stated, "using the results of this analysis and the comments of the judges, revisions can be made to improve the relevance of those items for which unsatisfactory ratings were obtained" (p. 218).

Judges' Written Feedback

A number of revisions were made to the questionnaire based on the written feedback provided by the judges. Rogers (1999) stated:

> Tests are imperfect measures of constructs either because they a) include something that should not have been included according to the construct's theory; i.e., construct-irrelevant test variance, or b) leave something out that should be included according to the theory surrounding the construct of interest; i.e., construct under representation. (p. 172)

The judges' written feedback on the questionnaire pinpointed areas that could be improved to decrease possible construct-irrelevant test variance.

Addressing Construct-Irrelevant Difficulty

When examining construct-irrelevant test variance, two basic sources of variance are construct-irrelevant difficulty and construct-irrelevant easiness (Rogers, 1999). Construct-irrelevant difficulty occurs "when the test is sensitive to factors that are extraneous to the focal construct and that make the test irrelevantly more difficult for some individuals or groups" (Rogers, 1999, p. 173). This would include item directions that made the test more difficult to complete.

A number of questions were revised, based on judges' feedback, to improve the clarity of the item's directions and their presentation. A summary of the judges' written feedback is provided in Appendix E. All of the revision suggestions made by the judges were noted by the researcher. Some of the suggested revisions were made in this revision of the questionnaire. It was necessary to include as many questions as possible for each of the language domains to have an adequate size pool of potential items from which to select the final set of items. Therefore, some of the comments that suggested the removal of questions were revisited following the administration of the questionnaire to a small group of teachers (see Chapter 5). For question 1, judges 7, 8, and 11 commented that the directions were unclear. Therefore, the wording in part c was changed to clarify it was sub-category headings and examples that respondents were being asked to provide. Three changes were made to question 2 to clarify the directions and the task. First, the term "base word" was removed in the directions since judge 6 pointed out that the terms "base word" and "free morpheme" were not necessarily synonymous. Judge 6 also commented that any teacher who had taken a linguistics course may judge the free morpheme in the word "kingdom" to be "dom" since it is a word of Latin origin. At this time, the word was not omitted from the question, but was removed in a subsequent draft. Second, respondents were asked to circle their responses instead of underlining them. This would make it easier to clearly identify respondents' answers. And third, the presentation of the written words was changed to separate each letter of the stimulus words to make it easier for respondents to circle the requested free morpheme.

Judge 18 commented the term "identify" in question 3 needed to be further explained to respondents. Therefore, the directions for question 3 were reworded to clarify how the morphemes in the question should be identified. Respondents were directed not only to identify the morphemes but to also circle each morpheme. Two other aspects of this question were changed. The presentation of the written words was altered to make it easier for respondents to circle their responses. The word "prevaricate" was also removed since judge 6 pointed out the word was of Latin origin and did not separate into the morphemes "pre-vari-cate" as indicated by the source material (Moats, 2000). That is, the "pre-" in this word does not mean "before." Instead, this word is treated as one morpheme ("prevaricate"). It was also noted that the separation of the word "injection" was incorrectly described in the answer key by the source material (Moats, 2000). Therefore, the identified morphemes were changed from "in-ject-ion" to "inject-ion." In question 4, Judge 7 commented the situations described in part b lacked sufficient context to determine which statement best matched the speaker listener combinations. Therefore, additional context was added to each example in question 4 to assist respondents in more readily matching the oral remark to each setting. Judge 6 commented the phrase "move this along" in part b of question 4 made more sense if it were used in an office setting than in a restaurant. In order to suit a restaurant setting the statement was changed from "Can we move this along, I have another appointment" to "I need to leave now, I have an appointment." Judges 3, 4, 11, and 13 commented it was not clear in question 5 if respondents were expected to just provide two meanings or all of the meanings of the sentences. Therefore, the directions for question 5 were reworded. Individuals completing the questionnaire were now being asked to identify and provide two paraphrases explaining two of the possible meanings conveyed by these multiple meaning words. It was also brought to their attention that there may be more than one multiple meaning word in each sentence.

The terms "consonant cluster or sequence" were removed in the directions for question 7 since judges 6 and 16 both pointed out that "cluster" and "sequence," terms used in oral language, are not necessarily synonyms for the term consonant blend. Two additional modifications to this question included changing the directions from underline to circle the letters included in the blend and altering the presentation of written words. That is, the letters in each of the stimulus words were spaced out to make it easier for respondents to circle their responses. Additional context was added to each example in question 8 to assist respondents to more readily identify the represented language function. The wording of the directions was also changed to indicate to respondents that there was one response that best represented the language function depicted in each example. Judges 8 and 18 both commented that some of the items included in question 9 could be omitted due to the items being "poor examples" of idioms and to shorten the question ("make the grade," and "leave her high and dry"). At this time these items were not removed from the question to ensure as many items as possible were representing the domain of language content. However, these comments were revisited following the administration of the questionnaire to a small group of teachers (see Chapter 5).

The directions for question 12 were reworded to clarify what was being asked. Respondents were now asked to identify and provide two paraphrases explaining two of the possible meanings conveyed by the entire sentence. The scoring of this question was changed to give respondents credit for providing explanations of each entire sentence's interpretation, and also for providing interpretations of each multiple meaning word. This would enable the researcher to investigate which marking scheme would best reflect the variability of participants' responses. Lastly, the directions for question 13 were changed from underline to circle the letters included in the digraph to make it easier to interpret participants' responses to the question. The presentation of the written words was also changed to make it easier for respondents to circle their responses.

Addressing Construct-Irrelevant Easiness

The other possible source of construct-irrelevant test variance that could be present in this questionnaire is construct-irrelevant easiness. This occurs "when extraneous clues in item or test formats permit some individuals to respond correctly in ways irrelevant to the construct being measured" (Rogers, 1999, p. 173). This would include items that could be answered by utilizing features of the question (e.g., test-wiseness) rather than by understanding the content of the question. In order to address this issue for question 13, an additional distractor was placed in the question ("every"). This would help prevent individuals completing the questionnaire from figuring out which items were digraphs by finding a pattern in how the distractors were related and eliminating these words as examples of digraphs. This would also help prevent respondents from using this question to respond to question 7, by figuring out the difference between a consonant blend and a consonant digraph. At this time the question was modified, but was removed in a subsequent draft of the questionnaire since test-wise individuals could still use it to correctly respond to question 7. A copy of this second draft of the Oral Language Questionnaire is provided in Appendix F.

Discussion

This portion of the study was the first step in the process of collecting validity evidence in association with the Oral Language Questionnaire. As Messick (1989) stated:

> Validity is an evolving property and validation a continuing process. Because evidence is always incomplete, validation is essentially a matter of making the most reasonable case to guide both current use of the test and current research to advance understanding of what the test scores mean. (p. 13)

When engaging in the content validation of a questionnaire a number of issues may arise. These may include "how well the objectives represent the domain, the meaningfulness of certain domains for examinees of different ethnic or cultural backgrounds, and whether item performance data are relevant to the judgement of content validity" (Crocker & Algina, 1986, p. 238). The first two issues will be considered in this chapter while the third issue, item performance data, will be considered in the final chapter.

The first issue considered when collecting content validity evidence on this questionnaire was whether the questions or items adequately represented the language domain to which any user of the test would want to make inferences (Crocker & Algina, 1986). A possible source of test variance to consider when designing a questionnaire is construct underrepresentation (Rogers, 1999). In construct underrepresentation, "the test is too narrow and fails to include important dimensions or facets of the construct" (Messick, 1989, p. 34). Efforts were made to decrease construct underrepresentation in this questionnaire by clearly defining each domain of reference, and utilizing expert opinions and curriculum guides when choosing and constructing items to represent each area of language. These steps helped to ensure that each judge was referring to the same language definition and not one of their choosing when making judgements of item fit. It also helped to ensure that the questions being utilized in the questionnaire were related to tasks students in the elementary classroom were expected to understand and perform, and therefore were important for teachers to understand. Due to time and space restrictions when utilizing a written questionnaire, every aspect of these language areas could not have been included in the questionnaire. However, every effort was made to select items that would adequately represent these language areas.

When considering items that were chosen to represent the language domains, judges' ratings of fit for items referenced to the domains of language content and use should be discussed. Some of the judges seemed to have difficulty differentiating between items referenced to the domains of language content and use when providing ratings of item fit. For example, question 9 asked respondents to provide the literal and figurative interpretations for selected idioms. Five of the 16 judges rated this group of items to best fit in the domain of language content, five judges rated the items to best fit in the domain of language use, and five judges rated the items to fit well under both the domains of language content and use. Only one judge rated the items in question 9 to best fit under the domain of language form. It appeared some of the judges viewed language meaning and use to be too interconnected in these items to rate them to best fit under a single language domain. Judges could also have been associating the literal interpretation of the items to the domain of language content and the figurative interpretation to the domain of language use. This phenomenon could be explored in a future study. A group of judges could be asked to rate the fit of items to the domains of language content and use (e.g., idioms), and provide verbal and/or written explanations as to why items related to a specific domain. In addition, a factor analysis could be completed with a larger sample of teachers in order to determine the dimensionality of the language domains.

The "question of ethnic, racial, or gender bias relevant to content validity judgement" (Crocker & Algina, 1986, p. 222) was a second issue that needed to be considered. This questionnaire was created to investigate teachers' explicit knowledge of English oral language. Teachers whose first language is not English may have difficulty interpreting what is being asked in each question, or may not understand some of the terminology that is used. For example, they may have difficulty understanding the meaning of figurative language, such as idioms, and other multiple meaning words utilized as tasks in the questionnaire. However, this questionnaire can provide teachers whose first language is not English an indication of some of the language areas they may have difficulty with in the English language. Therefore, it can still be a useful tool to be used with teachers who speak more than one language.

Prior to administering this new draft of the questionnaire to a large sample of teachers, it was administered to a small sample of teachers. This provided feedback on whether the revisions that had been made to the questionnaire clarified the tasks that were to be completed.

CHAPTER 5: PILOT STUDY

Crocker and Algina (1986) suggested that "before the test developer has printed items in final form for a field test, it is a good idea to try out the items on a small sample of examinees" (p. 82). The pilot study of the questionnaire enabled the researcher to obtain feedback on the clarity of each question's directions, the content of the tasks, and the length of each question prior to administering the questionnaire to a larger group of teachers. The procedures followed to administer the questionnaire to a small group of teachers and the results obtained from this pilot study are described in this chapter.

Methods and Procedures

Instrument

The second draft of the questionnaire was pilot tested in this portion of the study. A copy of this version of the questionnaire, and its answer key, can be found in Appendix F.

Participants

Ten teachers from Alberta and Saskatchewan were approached and agreed to complete the second draft of the Oral Language Questionnaire and provide feedback to the researcher. Five teachers had returned to university full-time and were in the process of completing graduate level degrees, three teachers were currently working full-time in a school system as classroom teachers, and two teachers had previously taught in the regular classroom at the elementary level and were currently employed as administrators in a school system (see Table 7). Three of the five teachers who had

Table 7

Pilot Study Participants' Background Information

Teacher	Highest completed degree	Years of teaching experience
A	B.Ed. 1	15
B*	M.Ed. 1	13
C*	M.Ed. 2	2
D	B.Ed. 2	6
E*	M.Ed. 1	5
F*	M.Ed. 3	11
G	B.Ed. 2	9
H	M.Ed. 4	13
I	B.Ed. 1	15
J*	M.Ed. 5	10

Note. B.Ed.1 = elementary education specialization; B.Ed. 2 = secondary education specialization; M.Ed. 1= Special Education; M.Ed. 2 = Educational Psychology; M.Ed. 3 = Teaching English As A Second Language; M.Ed. 4 = Educational Administration; M.Ed. 5 = Deafness Studies; * denotes teachers who had returned to university full-time at time of participation; _ denotes teachers who were administrators at time of participation.

returned to university full time were completing a Doctor of Philosophy (Ph.D.) degree in the area of special education, and two teachers were completing a Ph.D. in the area of educational psychology. The teachers' years of teaching experience ranged from 2 to 15 years. In order to ensure participants' anonymity, all feedback obtained from these participants was only identifiable by a code number and not by name, and direct quotes from their oral and/or written responses were not utilized. That is, all responses obtained from these individuals were paraphrased.

The group of teachers that were used in this small group trial was a convenience sample. That is, these individuals were known to the researcher. A concern of using a convenience sample is that these individuals may not represent the population (Fraenkel & Wallen, 2000). Although these individuals were known to the researcher, every attempt was made to find participants with varying levels of experience and education who would provide constructive feedback to the researcher. The diverse nature of this group of teachers can be confirmed by reviewing some of their personal characteristics (see Table 7).

Data Collection

The participants were given a copy of the information letter, which provided a description of the project, a written consent form, and a copy of the questionnaire to be completed. They were asked to not only respond to all of the items in the questionnaire, but to also provide feedback on the clarity of each question's directions, the content of the tasks, the length of each question, and record how long it took to complete the questionnaire. Once completed, the participants were asked to return the questionnaire to the researcher in person or by mail in the provided self-addressed envelope. The researcher clarified the respondents' written feedback, if necessary, in person or by phone.

Results

Language Form

The questions representing the domain of language form in the questionnaire included questions 2, 3, 6, 7, 10, 11, and 13. Each question was made up of several parts. These question parts will be referred to as items. The ten teachers made a variety of comments regarding this set of questions. Questions 2 and 3 asked respondents to identify the free and/or bound morphemes in the provided words (Moats, 2000). Question 6 asked respondents to identify the number of syllables and morphemes in the provided words (Moats, 1994). When considering question 2, teacher A stated the language was too technical. Teachers B, C, D, E, F, G, I, and J wanted the term "morpheme" defined in questions 2, 3, and 6 because they did not know the meaning of the word. As a result, teacher B refused to respond to question 6, and teacher G refused to answer questions 2, 3, and 6. Teacher F also commented that the free morpheme in the word "kingdom" could be identified as "dom" instead of "king" if a respondent recognized it as a word of Latin origin. Teacher J commented if the purpose of the morpheme questions was to find out if teachers understood the term morpheme it would be better to ask respondents to provide a written definition for the term.

Question 7 asked respondents to examine the presented words and identify the consonant blends (Moats, 1994). In question 7, teacher D did not know the meaning of the term "consonant blend." This was similar to comments teachers made regarding question 10. Questions 10 and 11 dealt with sound symbol correspondences (Moats, 1994). In question 10, teachers G and I did not know what speech sounds were but still attempted to answer the question. In question 11, teacher D did not understand what was being asked in the question and therefore had to guess as to the answer. Teacher G did not know what a speech sound was, and did not attempt to respond to the question. Question 13 asked respondents to identify the consonant diagraphs in the provided words (Moats, 1994). In question 13, teachers D and I reported they did not know what the term "consonant digraph" meant, but attempted to respond to the question. Teachers C and G also reported they did not understand the meaning of the term, but did not respond to the question. Teachers F and J commented this question related to written language and not to oral language. Teacher F did not know the meaning of the terms "consonant blend" or "consonant digraph." Therefore, teacher F compared the words in questions 7 and 13 to come up with a definition for each of the terms. Teacher F then used this definition to respond to the questions.

Language Content

Questions representing the domain of language content in this questionnaire included questions 1, 5, 9, and 12. Question 1 asked respondents to categorize a group of words according to headings included among the words (Moats, 2000). In question 1, teacher A commented it was confusing to have all the words listed together and wanted them separated. Teachers C and D reported they had missed the information that all the category headings were included among the lists of words. Teacher E thought using this as the first question would intimidate respondents. Teacher E also commented, as did teacher F, that this question was too long and had too many subcategories. Teacher F also commented it was difficult to categorize the term "truck." Teacher F thought of it as a "vehicle" and only placed it under the "tool" category through the process of elimination. Teacher I commented that this question was too hard and asked respondents to do too much work. Teacher J commented that the categories "softwood" and "hardwood" were difficult to figure out. Similar comments were made by judge 18 in chapter 4. Judge 18 commented that the subcategories of "softwood" and "hardwood" were not at the same level of abstraction as the other three subcategory headings.

Question 5 asked respondents to identify and explain multiple meaning words in a sentence (Fromkin et al., 1997). In question 5, teacher F found "clear title" difficult to explain. Teacher G did not understand how many paraphrases were being asked for in the question. Teacher I reported the question was asking her/him to do too much work, and refused to respond to items 5c, 5d, and 5e. Teacher J also commented the question was too long.

Question 9 involved providing the literal and figurative interpretations for a number of idioms (Fromkin et al., 1997; Moats, 2000; Parker, 1986). In question 9, teacher D found item 9d ("make the grade") hard to explain. Teacher E commented that the question had too many parts, while teacher F found items 9d ("make the grade"), 9e ("give me a break"), and 9g ("leave her high and dry") confusing. Teacher A commented it seemed silly to ask for the literal interpretation of the statements. Teacher I also thought that the question should just ask for figurative interpretations, commenting it was not important for anyone to understand the literal interpretation of an idiom. Therefore, teacher I refused to give the literal interpretation for items 9a to

9h. Teacher J found the literal interpretations harder to come up with, but responded to all of the items in the question.

Question 12 asked respondents to explain multiple meaning sentences (Fromkin et al., 1997). In question 12, teacher C identified an extra period in the instructions. Teacher F was confused in item 12c by the words "next Thursday" since including them in the sentence did not change the sentence's interpretation. Teacher D commented questions 5 and 12 seemed very similar. Teacher E found item 12a difficult to interpret, while teacher J found it hard to limit the responses to two paraphrases and gave multiple interpretations for some sentences.

Language Use

Questions representing the domain of language use in this questionnaire included questions 4 and 8. Question 4 dealt with language registers and how they change according to context (Bainbridge & Malicky, 2000). In question 4, teacher F commented it would be easier to interpret the context in each item if pronouns were placed in the context description. Teacher H commented that the directions for the question were confusing. Question 8 was concerned with respondents' knowledge of language functions (Bainbridge & Malicky, 2000; Halliday, 1973, 1975). In question 8, teachers E, F, and J commented the question was too long.

General Comments

Two teachers provided general comments once they had completed the questionnaire. Teacher H commented the terms that were used in the questionnaire would intimidate respondents and that the questionnaire was too long. Teacher I commented individuals completing this questionnaire would not want to work this hard.

Teachers were also asked to report the time it took them to complete the questionnaire. The reported completion times ranged from 30 to 90 minutes.

Background Information

Background questions were created to obtain information from respondents on their professional backgrounds. These background variables could possibly influence teachers' knowledge of oral language and/or students' academic achievement (Wayne & Youngs, 2003). In this section, respondents provided a variety of comments regarding the questions. A blank was placed at the top of the page for the researcher to write the assigned code number for each respondent, however teachers C and D were unclear if they were to fill in the blank.

A question was included for respondents to indicate the number of college or university courses they had taken in specified areas (i.e., linguistics, special education). Teachers B, D, F, and J reported they had been out of school for a number of years, and therefore they could not report the specific number of classes they had completed. Similar comments were made regarding the question asking respondents to report the number of inservice or continuing education hours they had completed in specified areas. Teachers commented that if a range of numbers were given that they would be better able to estimate the number of courses and inservice hours they had completed. Another set of questions was included to gain information from teachers on the experience they had in the teaching profession. Teacher B was confused how a teacher could differentiate between the years employed in the regular classroom versus the years employed as a special education teacher. Teacher B also commented if respondents had other types of educational experience, such as in administration or as a consultant, they would not be able to provide an answer.

Questionnaire Revision: Draft Three

A third draft of the questionnaire was developed based on the verbal and written feedback provided by the ten pilot study teachers. The revisions that were made are discussed in the following section.

General Revisions

In the directions at the beginning of the questionnaire an estimate of how long it would take for respondents to complete the questionnaire (i.e., 30 minutes) was provided. In order to inform respondents that some individuals may take longer to complete the questionnaire than others, the time range of 30 to 40 minutes was added to the instructions.

The rating scale in each question was revised. In order to enable respondents to relate the rating scale to the correct question, the question number in each scale was underlined. This revision was made because limited space did not allow four of the rating scales to fall on the same page as the questions to which they were related (questions 1, 4, 11, and 12).

Language Form

Questions 2, 3, 6, 7, 10, 11, and 13 represented the domain of language form in the questionnaire. In question 2, the term "kingdom" was omitted. It was a word of Latin origin, and therefore "dom" could have been identified as the free morpheme instead of "king." This problem was identified by judge 6 in chapter 4, and was also commented on by teacher F who had completed several linguistics courses. In questions 2, 3, and 6 the term "morpheme" was not defined for respondents even though several teachers had commented they wanted the term defined. The purpose of these questions was not to find out if respondents could take the provided definitions of these terms and answer each question. The purpose of these questions was to discover if respondents could understand the terms "morpheme," "free morpheme," and "bound morpheme" and apply the terms to the words in the questions. One teacher had indicated that it would be better to ask respondents to provide an open ended definition of the term "morpheme." This type of question was not utilized for two reasons. First, the current format of questions 2 and 3 asked respondents to identify and circle each morpheme in the provided words (i.e., free and/or bound morphemes). In this type of question format it would be easier to objectively score provided responses than scoring open ended definitions of the terms. Second, questions 2 and 3 each contained a number of items (eight and nine items respectively). If respondents were instead asked to provide definitions of the terms free and bound morphemes, then the number of items in each of these questions would decrease. Utilizing a question format which allowed each question to contain a larger number of items would give the researcher leeway to omit items that were not discriminating between examinees.

Teachers had also commented that they did not understand the terms used in questions 6 (morpheme), 7 (consonant blend), 10 and 11 (phoneme), and 13 (consonant digraph). These terms were also not defined for respondents, since the purpose of these questions was not to find out if respondents could take the provided definitions of these terms and answer each question. The purpose of the questions was to discover if respondents could understand each of these terms and respond to the posed questions.

Therefore, no changes were made to questions 6, 7, 10, and 11. However, question 13 was omitted. Even though the question had been changed in previous drafts a test wise individual could use this question to answer the question on consonant blends or vice versa. Teacher F generated a definition for the terms "consonant blend" and "consonant digraph" and then found the answers for questions 7 and 13.

Language Content

Questions 1, 5, 9, and 12 represented the domain of language content. In question 1, the researcher decided to change the term "amongst" in the directions to the more commonly used term "among." Based on the feedback from the small group of teachers, and judge 18 in chapter 4, two subcategories and all the terms associated with the categories were omitted to shorten the question. Judge 18 had commented the subheadings of "softwood" and "hardwood" were not at the same level of abstraction as the other three subcategory headings. Therefore, these two subcategories were omitted from the question. The term "truck" was also omitted because one teacher commented it may not be identified as a tool. In question 5 the number two was underlined to reinforce to respondents that two paraphrases were being asked for even though more than two meanings may be conveyed by each sentence.

In question 9, items that had been repeatedly identified as confusing or extremely difficult to find clear explanations for were omitted. These included the idioms "make the grade," "give me a break," and "leave her high and dry." A teacher had commented only the figurative interpretations should be asked for and not the literal. However, both interpretations are important. A lot of children have difficulty understanding and providing the figurative meanings of idioms. These children often interpret idioms literally. Teachers need to be able to recognize when these phrases are being literally rather than figuratively interpreted. Therefore, teachers need to be able to understand and identify both types of interpretations so they will be better able to clarify the meanings of these utterances for their students (see Moats, 2000).

In question 12, an extra period in the instructions was omitted. The number two was also underlined in this question to emphasize to respondents that they were only being asked to provide two paraphrases for each sentence. In item 12c the words "next Thursday" were omitted since the removal of the words did not alter the interpretation of the sentence.

Language Use

Questions 4 and 8 represented the domain of language use in the questionnaire. In question 4, pronouns were added in the location description to clarify the context for the respondents. Teachers in the pilot study had commented question 8 was too long. However, since the domain of language use was only represented by two questions, no items in this question were omitted.

Background Information Items

In the background information section of the questionnaire a number of revisions were made. The code line was removed since respondents were unclear if they were to fill in the blank or not. In background item 4, the researcher decided to add a description of how to fill in the "none" blank to the question's instructions. The directions were altered to indicate that if the respondent was not working on completing a degree, then a check mark should be placed by "none." In background item 6, respondents were asked to indicate the number of college and/or university courses they had completed in specified areas. Teachers commented that it would be easier to estimate the number of courses and continuing education hours they had completed if there was a range of course numbers and inservice hours to choose from. Therefore, background item 6 was changed to include a chart respondents could use to the estimate number of college and/or university courses they had taken. Background item 7 was also changed to a chart in which the respondents could estimate the number of continuing education and/or inservice hours they had completed. In background item 8, respondents were asked to list any languages in which they were proficient speakers. The researcher recognized that when learning different languages, not everyone becomes a proficient speaker. However, they may be able to understand, read, or write different languages. Therefore, a chart was created and respondents were asked to list any languages they could understand, speak, read, and/or write.

The heading "experience in the regular classroom" was added above background item 9 to clarify it was teachers' experience or the number of years they had taught in the regular classroom being asked for in this section. The heading "other educational experience" was added with a chart so respondents could report the number of years they had worked in administration, as a consultant, or as a special education teacher.

The example in background item 11 was changed from reading recovery to balanced literacy since a teacher had commented reading recovery was not the best example of a classroom reading or language arts program. Reading recovery was a program that may be used with students, but it is a pullout program used outside of the classroom environment. This item was omitted from questionnaires provided to graduate students attending the University of Alberta since it asked them to comment on their classroom practice. If these teachers were currently employed by any of the school divisions in the Edmonton area, the researcher would have had to receive approval from their school divisions to ask these respondents this question. By removing the item, it was not necessary to seek participation approval from the school divisions in which these graduate students were employed.

The pilot test provided oral and written feedback on the clarity of each question's directions, the content of the tasks, and the length of each question included in this second draft of the Oral Language Questionnaire. This feedback was used to make revisions to create the third draft of the Oral Language Questionnaire. A copy of this draft of the questionnaire, and its answer key, can be found in Appendix G. This draft of the questionnaire was then field tested with a larger group of teachers.

CHAPTER 6: FIELD-TESTING

Elementary and secondary trained teachers from the provinces of Saskatchewan and Alberta were recruited to field test the third draft of the questionnaire. The field-testing phase of test development:

> Typically involves the administration of the items in their final draft to a large sample of examinees representative of those for whom the test is designed. Statistical properties of the item scores are examined through a variety of procedures, known as item analysis. (Crocker & Algina, 1986, p. 83)

The results of item analyses procedures were used to revise or remove items that were found not to be discriminating between teachers who did well on the test items and teachers who did not (Crocker & Algina, 1986).

Methods and Procedures

Instrument

The third draft of the Oral Language Questionnaire was used in the field test. A copy of this version of the questionnaire and its answer key are provided in Appendix G.

Item Scoring

Each question in this questionnaire was made up of several parts. These question parts will be referred to as items.

Language Form. Questions 2, 3, 6, 7, 10, and 11, which represented the domain of language form, contained 57 items. Each of these items was dichotomously scored (received a scoring weight of 0 or 1). Therefore, the total number of points for the domain of language form was 57.

Language Content. Questions 1, 5, 9, and 12, which represented the domain of language content, involved 33 items. The items in two of these questions (1 and 9) were dichotomously scored. A scoring scheme of 0, 1, and 2 was utilized for the items in questions 5 and 12. Question 12, which asked respondents to explain multiple meaning sentences, was scored two different ways. A question total which was based on the respondents' interpretations of the entire sentence, and a total score based on respondents' interpretations of each multiple meaning word in the sentence were calculated. This enabled the researcher to investigate which marking scheme would best reflect the variability of participants' responses. The total number of points for the domain of language content was 46.

Language Use. Questions 4 and 8, which represented the domain of language use, contained 16 items. Each of the items in these two questions was dichotomously scored. Therefore, the total number of points for the language use domain was 16.

Participants

In order to conduct item analyses, a minimum sample size of 200 respondents was sought (Crocker & Algina, 1986). Preservice teachers in the last month of their undergraduate program at the University of Saskatchewan, teachers attending graduate level university courses at the University of Saskatchewan and the University of Alberta, and teachers working in eight urban and rural school divisions in Alberta and Saskatchewan were approached. The Oral Language Questionnaire was distributed to 1, 256 participants in person or by mail. Of this number, 236 participants (18.8%) returned completed questionnaires. Of the 236 participants, 198 (83.9%) were female and 36 (15.3%) were male (two individuals did not report their gender). The participants ranged in age from 21 to 62 years. Sixty-three participants (26.7%) possessed no teaching experience, 62 (26.3%) had 1 to 10 years of teaching experience, 51 (21.6%) possessed 11 to 20 years of teaching experience, 45 (19.1%) had 21 to 30 years of teaching experience, and 10 (4.2%) participants possessed 31 to 40 years of teaching experience.

The researcher was teaching undergraduate courses at the University of Saskatchewan during data collection, but did not approach students in any of the courses she was teaching to participate. The researcher was not teaching undergraduate or graduate courses at the University of Alberta during data collection, and was not employed by any of the school divisions that were contacted to participate. Therefore, the researcher did not have any relationship with potential participants and was not in a position in which potential participants felt coerced to participate.

In order to ensure anonymity, all participants' names were removed and replaced with a code number as they were received. Any documentation identifying the individual by name and their assigned code number was kept separate from their questionnaire responses.

Data Collection

Potential participants were provided a written description of the study, two copies of the consent form (one for the participants to retain for their records), the questionnaire, and a prepaid self-addressed envelope in which to return the questionnaire if they decided to participate. Participants were asked to complete the consent form, the questionnaire, and the background information questions and return all of the documents to the researcher in the envelope provided.

The preservice teachers attending university courses at the University of Saskatchewan and the graduate students at the Universities of Alberta and Saskatchewan were approached at the beginning or conclusion of a class given the verbal consent of the course instructor. The researcher presented a verbal and written description of the study for potential participants to review. In the undergraduate courses, most instructors gave the participants class time to complete the questionnaire. In the graduate courses, the questionnaire packages were given to students who expressed interest in participating in the study to return by a designated date.

The teachers in the eight urban and rural school divisions in Alberta and Saskatchewan were contacted by various means (by e-mail, by mail, or through their principal). Potential participants in one school division were recruited by e-mail. A description of the project was e-mailed to all of the teachers in this school division. Teachers were asked to contact the researcher by e-mail or phone if they were interested in participating. A questionnaire package was forwarded to interested participants to complete and return. For three of the school divisions, the researcher e-mailed and then met with consenting principals to discuss the research project. Questionnaire packages were provided to each of the principals to distribute to every teacher in their schools. The teachers in the remaining four school divisions were approached by mail to participate. The principals of the elementary schools in these divisions were first e-mailed a description of the project. Questionnaire packages were then forwarded by mail to the principals to distribute to all of the teachers on their staffs. Teachers interested in participating in the study were asked to return their completed questionnaires and consent forms by mail.

During the in person verbal summary describing the project, and in the information letter and consent form, it was clearly stated that participation was completely voluntary. At any point, participants were able to contact the researcher and withdraw from the study. Instructors of the participants recruited from university courses were asked to leave the room during the description of the project, and it was emphasized that instructors would not know who consented to participate and who did not. Therefore, there was no potential for students' standing in the class to be impacted.

Results and Discussion

Interrater Reliability

A sample of 20 out of the 236 returned questionnaires were scored by a second rater to check scoring accuracy. These 20 questionnaires were selected from the beginning and end of the first 100 questionnaires that were returned. Starting with the first returned questionnaire, ten were selected by choosing every third questionnaire (subjects 3, 6, 9, 12, 15, 18, 21, 24, 27, 30). The remaining ten were selected from the end of the first 100 returned questionnaires by selecting every third questionnaire (subjects 82, 85, 88, 91, 94, 97, 100, 103, 106, 109).

The percentage of agreement between rater 1 and rater 2 for each question item in the questionnaire was calculated (see Appendix H). With the exception of two items (5e and 12d), all of the questionnaire items scored by the two raters had an agreement equal to or greater than 80%.

The 12 questionnaire items for which there was less than 90% agreement between the two raters were reviewed by the raters to investigate the reason for their scoring discrepancies. When reviewing the items in which there were scoring discrepancies, most of the scoring differences between rater 1 and rater 2 were due to inconsistent adherence to the scoring guidelines. For example, question 5 asked respondents to explain multiple meaning words. Item 5e was the sentence "When he got the clear title to the land, it was a good deed." Rater 2 did not give two subjects credit for explaining "clear title" as meaning the person got ownership of the land. Rater 2 also did not give three subjects credit for explaining "deed" as a "piece of paper," a "certificate," or as a "gesture." Question 12 asked respondents to explain multiple meaning sentences. Item 12d was the sentence "I cannot recommend visiting professors too highly." When using the scoring scheme that gave respondents credit for explaining multiple meaning words in the sentence, rater 2 did not give three subjects credit for explaining "visiting professor" as someone "visiting the community," a professor who was "visiting Edmonton," or as a "professor who visits." Rater 2 also did not correctly add up the points in this item for one subject (had 2 points at the word level but only put 1 in the total).

The second rater made the majority of the remaining errors. Following the completion of the checks, rater 2 reported that the 20 questionnaires were scored over the course of several marking sessions and often the scoring guide was not referenced. Given this explanation, and the high level of agreement for the majority of items, the scoring criteria for the questionnaire items appeared to be clearly outlined for individuals marking the items. That is, accurate question scores will be achieved if individuals who subsequently use the questionnaire consistently follow the scoring criteria.

Item Analysis

Crocker and Algina (1986) describe the term item analysis to be "a term broadly used to define the computation and examination of any statistical property of examinees' responses to an individual test item" (Crocker & Algina, 1986, p. 311). The third issue considered in judging the validity of this questionnaire was the item performance data (Crocker & Algina, 1986). When looking at each item's performance within each language domain one wants to see variability in participants' responses. If a question item does not show variability, the reliability of the items in the domain may be hindered. An item not showing variability may need to be revised or removed from the questionnaire. Item and domain analyses were completed utilizing LERTAP 5 (Laboratory of Educational Research Test Analysis Package 5; Nelson, 2001). Difficulty indices and item discrimination indices were calculated for each item within each of the three language domains. The mean, standard deviation, and internal consistency (Cronbach's Alpha; Cronbach, 1951) were also calculated for each of the three language domains (language form, content, and use). The results of the item analysis are reported in Table 8 for the dichotomously scored items, and in Table 9 for the polytomously scored items.

Item difficulty values are the proportion of examinees who correctly answered the item (Crocker & Algina, 1986). This value gives an indication of the relative difficulty of an item. For the dichotomously scored items, the minimum and maximum difficulty values set for this instrument were 0.20 and 0.95 respectively

(W.T. Rogers, personal communication, July 5, 2004). As shown in Table 8, all but nine of the dichotomously scored items had difficulty indices in the inclusive range of 0.20 to 0.95 ($0.20 \leq p \leq 0.95$). Five of the dichotomously scored items had difficulty indices less than 0.20 ($p < 0.20$), while four of the dichotomously scored items had difficulty indices greater than 0.95 ($p > 0.95$). Most respondents got the four items with a difficulty index greater than 0.95 correct whether they were high or low scorers on the criterion or each domain total. Therefore, these items were likely not discriminating well between low and high scoring respondents. These four items may need to be revised or removed from the questionnaire.

The difficulty of each polytomously scored item, which equals the item mean, are reported in Table 9 together with the item standard deviation. The maximum score for each of these polytomously scored items was 2.0. A mean value close to 2.0 indicates the item was relatively easy for examinees, while a mean value close to zero indicates the item was more difficult for examinees. In order to identify items teachers found to be very difficult and very easy in this question, the minimum and maximum acceptable mean values were set at 0.25 and 1.75 respectively. This would eliminate items on which teachers' average performance was in the bottom eighth and top eighth of possible item scores. The five polytomously scored items that had mean values greater than 1.70 ($M > 1.70$) were relatively easy for examinees. The five items that had mean values greater than 1.0 but less than 1.70 ($1.00 < M < 1.70$) were moderately difficult for examinees, while the three items that had mean values less than 1.0 ($M < 1.00$) were more difficult for examinees. Only one item, 12a(sentence) had a mean value lower than 0.25. Prior to considering the removal or revision of this item based

Table 8

Item Statistics for Dichotomously Scored Items

Domain	**Item**	***p***	***pb(r)***
Form	2a	0.80	0.47
	2b	0.78	0.49
	2c	0.82	0.48
	2d	0.79	0.46
	2e	0.80	0.49
	2f	0.73	0.32
	2g	0.77	0.44
	2h	0.80	0.44
	3a	0.70	0.48
	3b	0.22	0.23
	3c	0.48	0.55
	3d	0.41	0.62
	3e	0.12	0.37
	3f	0.41	0.57
	3g	0.07	0.25
	3h	0.30	0.48
	3i	0.25	0.37
	6a(syll)*	0.99	0.16
	6b(syll)*	0.84	0.17
	6c(syll)*	0.84	0.17
	6d(syll)	0.90	0.21
	6e(syll)	0.98	0.20
	6f(syll)*	0.98	0.12
	6g(syll)*	0.84	0.07
	6h(syll)	0.95	0.21
	6a(morph)	0.64	0.33
	6b(morph)	0.64	0.42
	6c(morph)	0.55	0.56
	6d(morph)	0.57	0.58
	6e(morph)	0.76	0.34
	6f(morph)	0.40	0.52
	6g(morph)	0.58	0.53
	6h(morph)*	0.69	0.12
	7a*	0.31	0.06
	7b	0.62	0.41
	7c	0.46	0.37
	7d*	0.55	0.19
	7e*	0.70	0.17

Table 8

Item Statistics for Dichotomously Scored Items Continued

Domain	**Item**	***p***	***pb(r)***
Form	7f	0.37	0.30
	10a	0.21	0.41
	10b	0.68	0.50
	10c	0.36	0.31
	10d	0.38	0.42
	10e	0.30	0.38
	10f	0.65	0.57
	10g	0.70	0.53
	10h	0.29	0.48
	11a	0.17	0.43
	11b	0.12	0.41
	11c	0.54	0.36
	11d	0.64	0.37
	11e	0.52	0.28
	11f	0.07	0.33
	11g	0.28	0.35
	11h	0.42	0.39
	11i*	0.69	0.18
	11j	0.67	0.45
Content	1a	0.84	0.29
	1ba*	0.93	0.19
	1bb	0.86	0.34
	1bc	0.91	0.32
	1ca	0.87	0.33
	1cb	0.95	0.29
	1cc	0.95	0.24
	1cd	0.88	0.31
	1ce	0.91	0.32
	1cf	0.92	0.25
	9al	0.63	0.38
	9a(fig)*	0.97	0.06
	9b(lit)*	0.91	0.19
	9b(fig)*	0.92	0.19
	9c(lit)	0.73	0.39
	9c(fig)	0.95	0.23
	9d(lit)	0.60	0.45
	9d(fig)	0.78	0.37
	9e(lit)	0.70	0.39
	9e(fig)	0.74	0.28

Table 8

Item Statistics for Dichotomously Scored Items Continued

Domain	**Item**	*p*	*pb(r)*
Use	4aa	0.94	0.25
	4ab	0.94	0.29
	4ac	0.89	0.33
	4ba	0.74	0.29
	4bb	0.68	0.30
	4bc	0.88	0.30
	8a	0.67	0.21
	8b*	0.86	0.08
	8c*	0.89	0.05
	8d	0.86	0.22
	8e*	0.66	0.06
	8f	0.84	0.23
	8g*	0.88	0.11
	8h	0.77	0.21
	8i*	0.73	0.09
	8j*	0.81	0.16

Note. *p* = item difficulty; *pb(r)* = point-biserial correlation for the item's correct option; _ a relatively easy item; * a poorly discriminating item; syll = syllable count for item; morph = morpheme count for item; lit = literal interpretation of item; fig = figurative interpretation of item.

Table 9

Item Statistics for Polytomously Scored Items

Domain	**Item**	***M***	***SD***	***Corrected item-total correlation***
Content	5a	1.72	0.58	0.82
	5b	1.71	0.56	0.83
	5c	1.72	0.51	0.82
	5d	1.72	0.56	0.82
	5e	1.38	0.75	0.82
	12as	0.17	0.43	0.82
	12aw	1.36	0.73	0.82
	12bs	0.71	0.81	0.82
	12bw	1.74	0.58	0.82
	12cs	1.40	0.72	0.81
	12cw	1.40	0.72	0.81
	12ds	0.50	0.72	0.83
	12dw	1.56	0.72	0.82

Note. *M* = Item Mean (item difficulty); *SD* = Standard Deviation;

Corrected Item-Total Correlation = correlation when item's contribution to the subscale score was removed; "s" in question 12 represents sentence level scoring scheme used for item; "w" represents word level scoring scheme used for item.

on its difficulty value, the ability of these polytomously scored items to discriminate between examinees must also be considered.

Discrimination indices were calculated to show how well items were discriminating between respondents who did well on the criterion, in this case each domain total, and those who did not (Crocker & Algina, 1986; Nelson, 2001). As Crocker and Algina (1986) stated:

> The purpose of many tests is to provide information about individual differences either on the construct purportedly measured by the test or on some external criterion which the test scores are supposed to predict. In either case the parameter of interest in selection of items must be an index of how effectively the item discriminates between examinees who are relatively high on the criterion of interest and those who are relatively low. (p. 313)

The discrimination index (D value) was estimated using the point-biserial correlation for each dichotomously scored item (Bridgman, 1964). In calculating point-biserial correlations, performance on each test item was related to the individual's performance on the subtest to which each item was referenced. Seventy-three of the dichotomously scored items had a point-biserial correlation greater than or equal to 0.20 ($pb(r) \geq 0.20$) (see Table 8). Only 20 of the dichotomously scored items had a point-biserial correlation less than 0.20 ($pb(r) < 0.20$), the minimum value set for this instrument (W.T. Rogers, personal communication, July 5, 2004). These 20 items may need to be revised or removed from the questionnaire.

For each polytomously scored item, the correlation between the item score and the corresponding domain minus the total item score was used to assess the discrimination of the item. As reported in Table 9, the corrected item-total correlations when each of the 13 polytomously scored items were individually removed from the domain of language content were less than or equal to 0.83 (corrected item-total correlations ≤ 0.83). The internal consistency of the 33 items representing the domain of language content was 0.83 ($\hat{\alpha} = 0.83$). It appeared these items were not making an important contribution to the subtest, since a large change in the item-total correlation value was not seen when only one of the items from the subtest was removed at a time.

Language Form

In the domain of language form 41 of the 57 items were functioning properly. The 16 items that did not function properly are identified by item, the type of problem, and the action taken in Table 10. The problems with items included: the item was too easy for examinees, the item was too difficult for examinees, and/or the item was not discriminating well between low and high scoring examinees. The actions taken with items were to remove or to retain the item.

All of the items in questions 2 and 10, 9 of the 11 items in question 3, 9 of the 16 items in question 6, 3 of the 7 items in question 7, and 6 of the 10 items in question 11 were acceptably difficult and discriminating. Items 3e and 3g were both difficult items ($p = 0.12$ and 0.07 respectively). However, the discrimination of the items was satisfactory ($pb(r) = 0.37$ and 0.25 respectively). Consequently, these two items were retained. For question 6, 3 of the 8 items that required teachers to identify the number of syllables in the provided words, 6a(syllable), 6e(syllable), and 6f(syllable), were very easy ($p \geq 0.95$). Items 6a(syllable), 6b(syllable), 6c(syllable),

Table 10

Problematic Items

Domain	Item	Problem	Solution
Form	3e	2	B
	3g	2	B
	6a(syll)	1, 3	A
	6b(syll)	3	A
	6c(syll)	3	A
	6e(syll)	1	A
	6f(syll)	1, 3	A
	6g(syll)	3	A
	6h(morph)	3	A
	7a	3	B
	7d	3	B
	7e	3	B
	11a	2	B
	11b	2	B
	11f	2	B
	11i	3	A
Content	1ba	3	B
	9a(fig)	1, 3	A
	9b(lit)	3	A
	9b(fig)	3	A
	12as	2	A
	12aw	1	A
	12bw	1	A
	12cw	1	A
	12dw	1	A
Use	8b	3	A
	8c	3	A
	8e	3	A
	8g	3	A
	8i	3	A
	8j	3	A

Note. 1 = Easy item for examinees; 2 = Difficult item for examinees; 3 = Poorly discriminating item; A= Remove item; B = Retain item (no revision); syll = syllable count for item; morph = morpheme count for item; lit = literal interpretation for item; fig = figurative interpretation for item; "s" in question 12 represents sentence level scoring scheme used for item; "w" represents word level scoring scheme used for item.

6f(syllable), and 6g(syllable) had discrimination indices less than 0.20. One of the eight items that required teachers to identify the number of morphemes in the provided words, 6h(morpheme), had a discrimination index less than 0.20. Taken together, the six items that were both easy and nondiscriminating (6a(syllable), 6b(syllable), 6c(syllable), 6e(syllable), 6f(syllable), 6g(syllable), and 6h(morpheme)) were deleted.

Items 7a, 7d, and 7e had discrimination indices less than 0.20. It was the two distractors, 7b ("doubt"), and 7c ("known"), that were discriminating between examinees. That is, respondents were correctly identifying the consonant blends in the words "pumpkin," "squawk," and "first," but were misidentifying blends in the two distractors. However, if the area of interest is teachers' knowledge of consonant blends, then the words that contain blends in this question can not be eliminated. This would only leave items that do not contain consonant blends in the question. Therefore, all of the items in question 7 were retained. In a future study, additional words containing consonant blends could be added to this question to investigate if there are items that better discriminate between examinees. For question 11, 3 of the 10 items that required teachers to identify the number of speech sounds in the provided words, 11a, 11b, and 11f, were difficult items ($p \leq 0.20$). However, the discrimination of the items was satisfactory ($pb(r) = 0.43, 0.41,$ and 0.33 respectively). Item 11i had a discrimination index less than 0.20. Therefore, items 11a, 11b, and 11f were retained and item 11i, the nondiscriminating item, was removed from the questionnaire.

Language Content

In the domain of language content 24 of the 33 items were functioning properly. The nine items that did not function properly are identified by item, the type of problem, and the action taken in Table 10. All of the items in question 5, 9 of the 10 items in question 1, 7 of the 10 items in question 9, and 3 of the 8 items in question 12 were acceptably difficult and discriminating. Item 1ba had a discrimination index less than 0.20. Item 1ba asked respondents to identify 1 of the 3 subcategory headings in this categorization question. If this one subcategory heading was removed from the question, then the number of words being categorized would drastically decrease. Therefore, none of the items in question 1 were removed.

For question 9, 1 of the 5 items that required teachers to provide the figurative interpretations for selected idioms, 9a(figurative), was very easy ($p \geq 0.95$). Items 9a(figurative) and 9b(figurative) had discrimination indices less than 0.20. One of the five items that required teachers to provide the literal interpretations for selected idioms, 9b(literal), had a discrimination index less than 0.20. Taken together, the three items that were both easy and nondiscriminating (9a(figurative), 9b(literal), and 9b(figurative)) were removed from the questionnaire. It would be wise to review items in question 9 in a future project. Content validation judges were split between which domain these items best fit under, the domain of language content or the domain of language use. It would be interesting to further investigate this judgement split.

Two of the questions in this domain, questions 5 and 12, were polytomously scored. In question 5 respondents were identifying and correctly explaining the majority of the multiple meaning words in the sentences. Even though items 5a to d had higher mean values and less variability ($M \geq 1.71$, $SD \leq 0.58$) than item 5e ($M = 1.38$, $SD = 0.75$), all of these items were acceptably difficult. Therefore, all of the items in this question were retained in the questionnaire.

When respondents were asked to provide two interpretations of each multiple meaning sentence in question 12 more variability in examinees scores was seen. The researcher used two different scoring methods in this question. Items 12aw to 12dw were examinees' scores when they were given credit for explaining individual multiple meaning words in each sentence. Items 12as to 12ds were examinees' scores when they were given credit for explaining the meaning of the entire sentence (and not individual words in that sentence). When respondents were given credit for explaining each of the multiple meaning words in the sentences they did quite well on these items (*Ms* = 1.36, 1.74, 1.40, 1.56). However, examinees had more difficulty interpreting the entire sentence as seen in the lower mean values for items 12as to 12ds (*Ms* = 0.17, 0.71, 1.40, 0.50). There was also more variability in examinees' scores with sentence level scoring (*SDs* ranged from 0.43 to 0.81) than when word level scoring was utilized (*SDs* ranged from 0.58 to 0.73). Therefore, the method of scoring for question 12 that should be used in future versions of this questionnaire would be sentence level scoring. The item scores utilizing the word level scoring scheme (12 aw to 12dw) were removed from the domain of language content. The only item not meeting the minimum difficulty value ($M \geq 0.25$), 12as, was removed from the questionnaire.

Language Use

In the domain of language use, 10 of the 16 items were functioning properly. The six items that did not function properly are identified by item, the type of problem, and the action taken in Table 10. All of the items in question 4, and 4 of the 10 items in question 8 were acceptably difficult and discriminating. Items 8b, 8c, 8e, 8g, 8i, and 8j had discrimination indices less than 0.20. These six nondiscriminating items were removed from the questionnaire.

Domain Characteristics

Presented in Table 11 are the number of items, total possible score, mean, standard deviation, and Cronbach's Alpha for each domain after the removal of the previously discussed items. Item intercorrelations and Cronbach's Alpha were calculated for each domain of language or subtest to investigate how well item responses were related to each other (Nelson, 2001).

Language Form

The mean and standard deviation of the final draft of the language form domain were 24.84 and 8.93 respectively. The high value of internal consistency, 0.91, indicates that the 49 items in the final language form domain are assessing the same construct.

Language Content

The mean and standard deviation of the final form of the language content domain were 25.43 and 4.63 respectively. The value of internal consistency, 0.78, for the 25 items in this domain was lower than the value found for the items in the domain of language form. This lower value was likely due to this domain having almost half as many items as the domain of language form, since more items tend to increase reliability. These items appeared to be assessing the same construct.

Table 11

Domain Characteristics of Final Questionnaire Draft

	Language form	Language content	Language use
Number items	49	25	10
Total score	49	33	10
Mean	24.84 (50.7%)	25.43 (77.1%)	8.53 (85.3%)
SD	8.93 (18.2%)	4.63 (14.0%)	1.59 (15.9%)
$\hat{\alpha}$	0.91	0.78	0.59
SEM	2.66 (5.4%)	2.17 (6.6%)	1.01 (10.1%)

Note. Number items = Total number of items in domain; Total score = Total possible score can achieve in domain; *SD* = Standard deviation; $\hat{\alpha}$ = Cronbach's or coefficient alpha; *SEM* = Standard Error of Measurement.

Language Use

The mean and standard deviation of the final form of the language use domain were 8.53 and 1.59 respectively. The value of internal consistency, 0.59, for the 10 items in this domain was lower than the values found for the items in the other two language domains. This lower value was likely due to this domain having almost half as many items as the domain of language content and almost a quarter of the items found in the domain of language form, since more items tend to increase reliability. The reliability of the domain may also have been hindered because there was less variability in subjects' responses for some of the items.

If the number of items in this domain had been increased, then a higher reliability value may have resulted. Increasing the number of items in the domain would also have improved item representativeness. In a future study, additions to the items in questions 4 and 8 could be made to ensure variability in examinees' responses. For example, question 4 probes respondents' understanding of language registers and how they change according to context. Two different situations were described for respondents. Incorporating more items dealing with commonly and less commonly encountered social interactions may produce variability in examinees' responses. In question 8 respondents were asked to identify the function of language each situation represented. Each language function, according to Halliday's (1973, 1975) classification system, was described. Respondents were then asked to match each situation to one of the eight described language functions. These language function descriptions could be removed and replaced with one or two examples demonstrating how to identify language functions. Respondents would then be required to come up with their own label for the language function being depicted in each example. These modifications would likely increase the variability of examinees' responses.

Questionnaire Revision: Final Draft

The fourth and final draft of the questionnaire was developed based on the field-testing results of the third draft of the questionnaire. The final draft of the Oral Language Questionnaire that resulted from this study consisted of 84 items (see Appendix I). Forty-nine items comprised the domain of language form. None of the items were removed or revised in questions 2, 3, 7, and 10. Question 6 was reformatted in the final version of the questionnaire following the removal of items 6a(syllable), 6b(syllable), 6c(syllable), 6e(syllable), 6f(syllable), 6g(syllable), and 6h(morpheme). Respondents were only asked to report the number of syllables for two items (6d(syllable) and 6h(syllable)), and report the number of morphemes for seven items (6a(morpheme) to 6g(morpheme)). Only item 11i was removed from question 11.

Twenty-five items comprised the domain of language content. None of the items were removed or revised in question 1 or question 5. Question 9 was reformatted in the final version of the questionnaire following the removal of items 9a(figurative), 9b(literal), and 9b(figurative). Respondents were only asked to explain the literal interpretations of four items (9a(literal), 9c(literal), 9d(literal), 9e(literal)), and the figurative interpretations of three items (9c(figurative), 9d(figurative), 9e(figurative)). In question 12 one item (12a(sentence)) was removed. Only the sentence level scoring scheme would be utilized with items 12b to 12d in future administrations.

Ten items comprised the domain of language use. None of the items in question 4 were removed or revised. Question 8 was shortened with the removal of six items (8b, 8c, 8e, 8g, 8i, and 8j).

Although further additions could be made to this questionnaire to improve the reliability values for two of the subtests (language content and use), and items could be removed from the language form subtest to decrease the number of items representing the domain, in its present form this tool can be used to investigate teachers' knowledge of the domains of language form and content. However, further work is needed to increase the internal consistency of the domain of language use. Therefore, caution should be used when interpreting the item scores obtained on this domain.

CHAPTER 7: GENERAL DISCUSSION AND CONCLUSION

Summary

Purpose and Procedures

The purpose of this dissertation was to develop and begin the process of collecting reliability and validity evidence for a questionnaire assessing teachers' knowledge of three language domains: language form (phonology, morphology, syntax), content (semantics), and use (pragmatics). In the first phase of this study, the areas of language form, content, and use essential for teachers to know were identified by interviewing four language arts experts and assessing *The Common Curriculum Framework for English Language Arts, Kindergarten to Grade 12* (Manitoba Education and Training, 1998). The informants' responses were reviewed to find the areas each expert identified as essential for teachers to know in the areas of language form, content, and use. These interviews gave the researcher a general guideline as to what to include in the questionnaire. The assessment of *The Common Curriculum Framework for English Language Arts, Kindergarten to Grade 12* (Manitoba Education and Training, 1998) was made in order to verify the opinions of these experts, and determine specific tasks teachers were expected to incorporate into their classrooms. Questions representing the language areas that could be directly tied to the language arts curriculum at the elementary level were directly taken from a variety of sources, modified from sources, and/or developed to incorporate into the first draft of the Oral Language Questionnaire.

In the second phase of the study, language arts experts from across Canada were asked to help complete a content analysis of the questionnaire by reviewing the first draft of the questionnaire, and rating the fit between each questionnaire item and the domains of language being measured (language form, content, and use). The ratings and written feedback provided by this panel of judges was reviewed and used to make revisions to create the second draft of the Oral Language Questionnaire. This draft of the questionnaire was then used in the pilot study.

The pilot study involved having a group of ten teachers provide oral and written feedback on the clarity of each question's directions, the content of the tasks, and the length of each question included in the second draft of the Oral Language Questionnaire. This feedback was used to make revisions to create the third draft of the Oral Language Questionnaire, the version that would be used in field-testing.

In the field-testing portion of this study, preservice teachers in the last month of their undergraduate program at the University of Saskatchewan, teachers attending graduate level university courses at the University of Saskatchewan and the University of Alberta, and teachers working in eight urban and rural school divisions in Alberta and Saskatchewan were approached. Item and domain analyses were completed utilizing LERTAP 5 (Laboratory of Educational Research Test Analysis Package 5; Nelson, 2001). The fourth and final draft of the Oral Language Questionnaire was developed based on the field-testing results of the third draft of the questionnaire.

Findings

1. Language form (phonology, morphology, syntax), language content (semantics), and language use (pragmatics) were identified as the major components of language around which the Oral Language Questionnaire was developed (Bloom & Lahey, 1978; Owens, 1992). A review of the literature, interviews with language arts

experts, and an assessment of the curriculum identified aspects of oral language important for elementary teachers to understand in order to address the language and literacy needs of children with varied abilities, specifically those with language and/or reading difficulties in the classroom.

2. The final draft of the questionnaire that resulted from this study consisted of 84 items (see Appendix I). Six questions, which contained 49 items, represented the domain of language form. Questions 2 and 3 asked teachers to identify the morphemes (free and bound) in the provided words. Question 6 asked teachers to identify the number of syllables and morphemes in selected words. Question 7 asked teachers to identify consonant blends in words. Lastly, questions 10 and 11 dealt with sound-symbol correspondences. In these questions respondents were asked to identify the speech sounds or phonemes in each of the provided words.

Four questions, which contained 25 items, represented the domain of language content. Question 1 asked teachers to categorize a group of related words. Question 5 asked teachers to explain multiple meaning words. Question 9 asked teachers to provide the literal and figurative interpretations for a number of idioms. Lastly, question 12 asked teachers to explain multiple meaning sentences.

Two questions, which contained ten items, represented the domain of language use. Question 4 looked at knowledge of language registers, while question 8 was concerned with teachers' knowledge of language functions.

3. Although further additions could be made to this questionnaire to improve the reliability values for two of the subtests (language content and use), in its present form this tool can be used to investigate teachers' knowledge of the domains of

language form and content. However, further work is needed to increase the internal consistency of the domain of language use. Therefore, caution should be used when interpreting the item scores obtained on this domain.

Limitations

The first limitation in this study was the manner in which identified areas of importance from experts' interviews were obtained. Following the identification of the areas of importance present in the experts' interviews, the researcher did not go back to the four individuals to verify that she had captured their thoughts and recommendations. This step was not taken since the participants were given the opportunity to elaborate on their responses during the interview. However, in order to receive explicit verification from interviewees, and further support the researcher's findings, in future projects interviewees should be asked to review the identified areas of importance from their interviews.

A second limitation in this study was that an additional step should have been taken to ensure item representativeness. This questionnaire was constructed to contain questions that were both relevant to and representative of the three areas of language. A number of steps were taken in chapter three to ensure the relevance of items for each language domain (e.g., expert interviews, curriculum review). However, the judges used in the panel review should also have been asked to directly comment on item representativeness.

A third limitation in this study was the potential for response bias. During the field-testing phase of this study, 236 of the 1, 256 questionnaires distributed were returned to the researcher. This resulted in an 18.8% response rate. The concern with a low response rate is that the individuals who did not participate may have possessed characteristics that were not represented by those individuals who chose to participate in the study (Judd, Smith, & Kidder, 1991). It is not known if the response rate had been higher, if the additional teachers would have performed the same or different than the teachers who did participate. If the performance remained unchanged, then the results of the item analyses and the decisions taken to retain and eliminate items would not change. However, if the additional teachers performed differently, then different decisions may have been made.

The low response rate of respondents during the field-testing phase of this study may be attributed to several reasons. First, teachers may have been uncomfortable with the process or threatened by the content of the questionnaire. When experts from across Canada were asked to judge the content of the questionnaire, there was a high response rate from judges that agreed to participate (18 out of 23 responded or 78%). However, a response rate of 18.8% was achieved when teachers were asked to complete and return the questionnaire. Something in the process may have made them uncomfortable. The experts may have more readily participated in this project because their feedback was informing the researcher, whereas teachers may not have readily participated because of a fear the questionnaire was "informing on them." That is, teachers may have been threatened by having to show any areas of weakness in their knowledge of language.

The length of the questionnaire could have been a second reason for the low response rate. It was necessary to include as many questions as possible for each of the language domains to have an adequate size pool of potential items from which to select the final set of items. Teachers would likely only participate in a project if it could be completed in a reasonable amount of time. Although more questionnaire items would have improved item representativeness and reliability estimates, the extended time commitment would have made it even more difficult to find teachers willing to participate.

The third reason for the low response rate could be related to the methods used to recruit subjects. The researcher requested the opportunity to recruit subjects in person. That is, the researcher wanted to give face-to-face explanations of the research study to teachers during school time (e.g., during monthly staff meetings). However, this request was not granted by officials of the participating school divisions. Reasons included that school staffs were too busy and that schools in the division were already participating in other research projects. These school divisions would grant permission for the researcher to recruit participants only if teachers were asked to complete the questionnaires on their own time and of their own volition. Therefore, the researcher made personal contact with willing principals in these school divisions to discuss the research project. The researcher hoped that if principals understood and bought into the project, then they would be more willing to encourage the teachers on their staffs to participate. An increased level of participation among teachers would likely have been seen if the participating school divisions had been willing to allow teachers work time or time during work related activities (e.g., teacher conventions) to complete the questionnaires.

Conclusion

Language is an integral part of reading and writing instruction (Perfetti & Sandak, 2000). It has been argued that a thorough understanding of language is necessary for teachers to successfully address reading and writing differences and difficulties in their classrooms (Wilson, 1999). Teachers need to continually evaluate students' strengths and weaknesses and adapt their teaching to meet students' language and literacy needs (Fillmore & Snow, 2000). If we want to better understand what teachers know about language and how this knowledge is associated with the academic outcomes of their students, then a questionnaire that can be reliably and validly interpreted needs to be developed to survey teachers' knowledge of all three language domains: language form, content, and use. The purpose of this dissertation was to begin the process of developing and collecting reliability and validity evidence for such a questionnaire.

It is not an easy task to find and/or create items for a questionnaire or test. Question development is a time consuming process. It is not likely that every question will measure what it was designed to measure, and that every question will discriminate between examinees who did well on the criterion and those who did not. It may take the test developer several revisions before items are created that effectively discriminate between examinees. It is only through in depth analyses one can determine the quality of test items. The expert interviews, curriculum review, panel judgements, and item analyses conducted in this study have identified items that could be used to investigate teachers' knowledge of oral language, items that need to be revised, and those items that should be removed. This resulted in the development of an assessment tool that will more effectively identify the aspects of oral language with which teachers are having difficulty.

Lastly, throughout this study the questions which comprised the three domains of language were referred to as the Oral Language Questionnaire. A questionnaire typically surveys the beliefs and/or opinions of respondents, and a test investigates respondents' knowledge of a subject (Nelson, 2001). Therefore the document described in this study should really be referred to as an assessment or test of teachers' knowledge of oral language. The researcher continued to call the document a questionnaire because she felt if it were called a test the response rate would have been adversely affected during field-testing. However, it seemed teachers felt their knowledge was being tested even when the collection of questions was called a questionnaire. This perception likely adversely affected the response rate. In the future, the true nature of the questions should be reflected in the name of the instrument, which has been changed to the "Assessment of Oral Language Knowledge."

Implications for Practice

The information provided by an assessment tool such as the Assessment of Oral Language Knowledge should provide valuable information about teachers' knowledge of oral language. Information on the level of oral language knowledge of teachers would bolster teacher education courses in the areas of special education and language arts. This information could also lend to the creation of continuing education programs designed to enhance teachers' understanding of these aspects of language. These types of programs could only benefit students experiencing language and/or literacy difficulties in our classrooms.

Implications for Future Research

Throughout this study several areas have been identified that could be expanded on in future research studies. The underlying concern in this project was children with language and/or reading difficulties. That is, in order to meet the needs of students with oral language and/or reading difficulties, teachers need to understand the areas of form (phonology, morphology, syntax), content (semantics), and use (pragmatics). The Assessment of Oral Language Knowledge can be used to assess this level of knowledge. However, teachers' knowledge of the aspects of language related to students with language differences are not considered in the Assessment of Oral Language Knowledge instrument. Students with language differences may include students whose first language is not English (ESL) and students with limited English proficiency. A future project could focus on the creation of assessment items concerned with teachers' understanding of language differences.

A second project that could expand existing understanding of teachers' knowledge is linking teachers' theoretical beliefs about language development and language disorders, or reading development and reading disorders, to their declarative knowledge of these areas. In turn, teachers' beliefs and their declarative knowledge of these areas could be linked to their classroom practice and student outcomes.

Further exploring experts' opinions on multiple meaning expressions is a third project that could be completed. In this study there was a split in the judges' opinions as to whether idioms best fit in the area of language content or language use. A study exploring experts' understanding and beliefs regarding idioms may provide a clearer picture of why this split in judgement existed.

During the field-testing phase of this study 236 of the 1, 256 questionnaires distributed were returned (18.8% response rate). It appeared something in the process may have made potential participants uncomfortable or they may have been threatened by having to show lack of knowledge in an area. Therefore, a future study could involve looking at teacher thinking while responding to the questionnaire in order to investigate and document what in this process may have been making them uncomfortable.

Lastly, the fourth draft of the Assessment of Oral Language Knowledge needs to be empirically assessed to ensure that the revisions yield scores that can be validly and reliably interpreted. Items might now be profitably added to the items referenced to the domains of language content and language use, in order to increase the internal consistency of these domain scores. Items might now also be profitably removed from the domain of language form in order to decrease the number of items representing the domain.

REFERENCES

Adams, M..J. (1990). *Beginning to read: Thinking and learning about print.* Cambridge, MA: MIT Press.

Adams, C., & Bishop, D.V.M. (1989). Conversational characteristics of children with semantic-pragmatic disorder. I: Exchange structure, turntaking, repairs and cohesion. *British Journal of disorders of Communication, 24*(3), 211-239.

Allgood, S., & Walstad, W. B. (1999). The longitudinal effects of economic education on teachers and their students. *Journal of Economic Education, 30*(2), 99-111.

American Speech-Language-Hearing Association Ad Hoc Committee on Service Delivery in the Schools. (1993). Definitions of communication disorders and variations. *Asha, 35* (Suppl. 10), 40-41.

Anderson, R.C., Reynolds, R.E., Schallert, D.L., & Goetz, E.T. (1977). Frameworks for comprehending discourse. *American Educational Research Journal, 14*(4), 367- 381.

Akmajian, A., Demers, R.A., Farmer, A.K., & Harnish, R.M. (2001). *Linguistics: An introduction to language and communication (5th ed)*. Cambridge, MA: MIT Press.

Bainbridge, J., & Malicky, G. (2000). *Constructing meaning: Balancing elementary language arts (2nd ed).* Toronto, ON: Harcourt Canada.

Bishop, D.V.M., & Adams, C. (1989). Conversational characteristics of children with semantic-pragmatic disorder. II: What features lead to judgement of inappropriacy? *British Journal of Disorders of Communication, 24*(3), 241-263.

Bishop, D.V.M., & Adams, C. (1992). Comprehension problems in children with specific language impairment: Literal and inferential meaning. *Journal of Speech and Hearing Research, 35*(1), 119-129.

Bishop, D.V.M., & Edmundson, A. (1987). Language-impaired 4-year-olds: Distinguishing transient from persistent impairment. *Journal of Speech and Hearing Disorders, 52*(2), 156-173.

Bloom, L. (1975). Language development. In F. Horowitz (Ed.), *Review of child development research (No. 4).* Chicago: University of Chicago Press.

Bloom, L., & Lahey, M. (1978). *Language development and language disorders.* New York: John Wiley & Sons.

Bridgman, C.S. (1964). The relation of the upper-lower item discrimination index, d, to the bivariate normal correlation coefficient. *Educational and Psychological Measurement, 24*(1), 85-90.

Bryk, A. S., & Raudenbush, S. W. (1992). *Hierarchical linear models: Applications and data analysis methods.* Newbury Park, CA: Sage Publications.

Catts, H. W. (1986). Speech-production/phonological deficits in reading-disordered children. *Journal of Learning Disabilities, 19*, 504-508.

Catts, H. W. (1996). Defining dyslexia as a developmental language disorder: An expanded view. *Topics in Language Disorders, 16*(2), 14-29.

Catts, H. W. (1999). Phonological awareness: Putting research into practice. *Language Learning and Education, 6*(1), 17-19.

Catts, H. W., Fey, M. E., Zhang, X., & Tomblin, J. B. (1999). Language basis of reading and reading disabilities: Evidence from a longitudinal investigation *Scientific Studies of Reading, 3*, 331-361.

Catts, H. W., Hu, C. F., Larrivee, L., & Swank, L. (1994). Early identification of reading disabilities in children with speech-language impairments. In R. V. Watkins & M. L. Rice (Eds.), *Specific language impairments in children* (pp. 145-160). Baltimore, MD: Paul H. Brookes Publishing.

Catts, H. W., & Kamhi, A. G. (1999). *Language and reading disabilities.* Boston: Allyn & Bacon.

Chapman, R.S. (1981). Exploring children's communicative intents. In J.F. Miller, *Assessing language production in children: Experimental procedures* (pp. 111-136). Baltimore, MD: University Park Press.

Chomsky, N. (1968). *Language and mind.* New York: Harcourt, Brace & World.

Clark, H.H., & Clark, E.V. (1977). *Psychology and language: An introduction to psycholinguistics.* New York: Harcourt Brace Jovanovich.

Cochran, K. E., DeRuiter, J. A., & King, R. A. (1993). Pedagogical content knowing: An integrative model for teacher preparation. *Journal of Teacher Education, 44*(4), 263-272).

Connelly, V. (2002). Graphophonemic awareness in adults after instruction in phonic generalizations. *Learning and Instruction, 12*, 627-649.

Crocker, L., & Algina, J. (1986). *Introduction to classical & modern test theory.* Orlando, FL: Harcourt Brace Jovanovich College Publishers.

Cronbach, L.J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika, 16*, 297-334.

Cronbach, L.J. (1971). Test validation. In R.L. Thorndike (Ed.), *Educational measurement* (2nd ed., pp. 443 – 507). Washington, DC: American Council on Education.

Crystal, D. (1995). *The Cambridge encyclopedia of the English language*. New York: Cambridge University Press.

Deford, D. E. (1985). Validating the construct of theoretical orientation in reading instruction. *Reading Research Quarterly, 20*, 361-367.

Dore, J. (1974). A pragmatic description of early language development. *Journal of Psycholinguistic Research, 3*(4), 343-350.

Dore, J. (1975). Holophrases, speech acts and language universals. *Journal of Child Language, 2*(1), 21-40.

Farnham-Diggory, S. (1994). Paradigms of knowledge and instruction. *Review of Educational Research, 64*(3), 463-477.

Feagans, L., & Short, E.J. (1984). Developmental differences in the comprehension and production of narratives by reading-disabled and normally achieving children *Child Development, 55*, 1727-1736.

Ferguson, P., & Womack, S. T. (1993). The impact of subject matter and education coursework on teaching performance. *Journal of Teacher Education, 44*(1), 55-63.

Fillmore, L. W., & Snow, C. E. (2000). *What teachers need to know about language.* (Contract No. ED-99-CO-0008). Washington, DC: U.S. Department of Education's Office of Educational Research and Improvement.

Fitzpatrick, A.R. (1983). The meaning of content validity. *Applied Psychological Measurement, 7*(1), 3-13.

Fletcher, J. M., Shaywitz, S. E., Shankweiler, D. P., Katz, L., Liberman, I. Y., Stuebing, K. K., Francis, D. J., Fowler, A. E., & Shaywitz, B. A., (1994). Cognitive profiles of reading disability: Comparisons of discrepancy and low achievement definitions *Journal of Educational Psychology, 86*, 6-23.

Fraenkel, J.R., & Wallen, N.E. (2000). How to design and evaluate research in education (4th ed.). Boston: McGraw Hill.

Fromkin, V., Rodman, R., Hultin, N., & Logan, H. (1997). *An introduction to language (1st Canadian ed).* Toronto, ON: Harcourt Brace.

Fry, M.A., Johnson, C.S., & Muehl, S. (1970). Oral language problems in relation to reading achievement among select second graders. In D.J. Bakker & P. Satz (Eds.), *Specific reading disability: Advances in theory and method* (pp. 123-146). Rotterdam: Rotterdam University Press.

Gagne, R.M. (1985). *The conditions of learning and theory of instruction.* New York: Holt, Rinehart, and Winston.

Garnett, K. (1986). Telling tales: Narratives and learning-disabled children. *Topics in Language Disorders, 6*(2), 44-56.

Gerber, A. (1993). *Language-related learning disabilities: Their nature and treatment*. Baltimore, MD: Paul H. Brookes Publishing.

Gillon, G. T. (2000). The efficacy of phonological awareness intervention for children with spoken language impairment. *Language, Speech, and Hearing Services in Schools, 31*, 126-141.

Gillon, G., & Dodd, B. (1993). The phonological, syntactic and semantic skills of children with specific reading disability. *Australian Journal of Human Communication Disorders, 21*(1), 87-102.

Gillon, G., & Dodd, B. (1995). The effects of training phonological, semantic, and syntactic processing skills in spoken language on reading ability. *Language, Speech, and Hearing Services in Schools, 26*, 58-68.

Grossman, P. L. (1990). *The Making of a Teacher: Teacher Knowledge & Teacher Education*. New York: Teachers College Press.

Hall, S. L., & Moats, L. C. (1999). *Straight talk about reading: How parents can make a difference during the early years*. Chicago: Contemporary Books.

Halliday, M.A.K. (1973). *Explorations in the functions of language*. London: Edward Arnold.

Halliday, M.A.K. (1975). *Learning how to mean: Explorations in the development of language*. New York: Elsevier North-Holland.

Harley, T.A. (1995). *The psychology of language: From data to theory*. East Sussex, UK: Erlbaum (UK) Taylor & Francis.

Hayward, D., & Schneider, P. (2000). Effectiveness of teaching story grammar knowledge to preschool children with language impairment: An exploratory study. *Child Language Teaching & Therapy, 16*(3), 255-283.

International Reading Association. (2003). Investment in teacher preparation in the United States: A position statement of the international reading association. Newark, DE: Author.

Jones, S. D., & Messenheimer-Young, T. (1989). Content of special education courses for preservice regular education teachers. *Teacher Education and Special Education, 12*(4), 154-159.

Judd, C.M., Smith, E.R., & Kidder, L.H. (1991). *Research methods in social relations (6th ed.).* Fort Worth, TX: Harcourt Brace Jovanovich.

Kamhi, A. G., & Catts, H. W. (1991). *Reading disabilities: A developmental language perspective.* Needham Heights, MA: Allyn & Bacon.

Kavale, K. (1982). A comparison of learning disabled and normal children on the boehm test of basic concepts. *Journal of Learning Disabilities, 15*(3), 160-161.

Kerbel, D., & Grunwell, P. (1997). Idioms in the classroom: An investigation of language unit and mainstream teachers' use of idioms. *Child Language Teaching and Therapy, 13*, 113-123.

Klees, M., & Lebrun, A. (1972). Analysis of the figurative and operative processes of thought of 40 dyslexic children. *Journal of Learning Disabilities, 5*(7), 389-396.

Klecan-Aker, J.S., Domico, W.D., & Bothwell, K. (1983). A clinical taxonomy for the categorization of language functions used by school-age children in a structured setting. *Language and Speech*, *26*(2), 131-144.

Klecan-Aker, J.S., & Lopez, B. (1984). A comparison of language functions used by normal male and female pre-school children in a structured setting. *Journal of Childhood Communication Disorders*, *7*(2), 4-16.

Klecan-Aker, J.S., & Swank, P.R. (1987). The narrative styles of normal first and third grade children. *Language and Speech*, *30*(3), 251-262.

Klecan-Aker, J.S., & Swank, P.R. (1988). A comparison of the use of language functions by normal and language-disordered children. *Journal of Childhood Communication Disorders*, *11*(2), 263-274.

Larrivee, L. S., & Catts, H. W. (1999). Early reading achievement in children with expressive phonological disorders. *American Journal of Speech-Language Pathology*, *8*, 118-128.

Lazar, R.T., Warr-Leeper, G.A., Nicholson, C.B., & Johnson, S. (1989). Elementary school teachers' use of multiple meaning expressions. *Language, Speech, and Hearing Services in Schools*, *20*(4), 420-429.

Lenneberg, E. (1967). *Biological foundations of language*. New York: Wiley.

Lindfors, J. W. (1987). *Children's language and learning* (2nd ed.). Englewood Cliffs, NJ: Prentice-Hall.

Lerner, J. (1997). *Learning disabilities: Theories, diagnosis, and teaching strategies.* Boston, MA: Houghton Mifflin.

Lombardino, L. J., Riccio, C. A., Hynd, G. W., & Pinheiro, S. B. (1997). Linguistic deficits in children with reading disabilities. *American Journal of Speech-Language Pathology, 6*(3), 71-78.

Lyon, G. R. (1999). Reading development, reading disorders, and reading instruction: Research-based findings. *Language Learning and Education, 6*(1), 8-16.

Lyon, G. R., Vaassen, M., & Toomey, F. (1989). Teachers' perceptions of their undergraduate and graduate preparation. *Teacher Education and Special Education, 12*(4), 164-169.

Mandeville, G. K., & Liu, Q. (1997). The effect of teacher certification and task level on mathematics achievement. *Teaching and Teacher Education, 13*(4), 397-407.

Manitoba Education and Training. (1998). *The common curriculum framework for English language arts kindergarten to grade 12.* Winnipeg, MB: Manitoba Education and Training.

Mann, V. (1998). Language problems: A key to early reading problems. In B. Y. L. Wong (Ed.), *Learning about learning disabilities* (2nd ed., pp. 163-201). San Diego, CA: Academic Press.

Mather, N., Bos, C., & Babur, N. (2001). Perceptions and knowledge of preservice and inservice teachers about early literacy instruction. *Journal of Learning Disabilities, 34*, 472-482.

McColgin, L. S. (1998). The speech and language glossary. In S. Gooze (Ed.), *Teacher Articles* (pp. 15-17). San Antonio, TX: Psychological Corporation.

McCutchen, D., Abbott, R. D., Green, L. B., Beretvas, S. N., Cox, S., Potter, N. S., et al. (2002). Beginning literacy: Links among teacher knowledge, teacher practice, and student learning. *Journal of Learning Disabilities, 35*, 69-86.

McCutchen, D., & Berninger, V. W. (1999). Those who know, teach well: Helping teachers master literacy-related subject-matter knowledge. *Learning Disabilities Research & Practice, 14*(4), 215-226.

McLean, J., & Snyder-McLean, L. (1978). *A transactional approach to early language training*. Columbus, OH: Merrill.

Messick, S. (1995). Standards of validity and the validity of standards in performance assessment. *Educational Measurement: Issues and Practice, 14*(4), 5-8.

Messick, S. (1989). Validity. In R.L. Linn (Ed.), *Educational measurement* (3rd ed., pp. 13-103). New York: Macmillan Publishing.

Moats, L. C. (1994). The missing foundation in teacher education: Knowledge of the structure of spoken and written language. *Annals of Dyslexia, 44*, 88-102.

Moats, L.C. (2000). *Speech to print: Language essentials for teachers*. Baltimore, Maryland: Paul H. Brookes Publishing.

Moats, L. C., & Lyon, G. R. (1996). Wanted: Teachers with knowledge of language. *Topics in Language Disorders, 16*, 73-81.

Morice, R., & Slaghuis, W. (1985). Language performance and reading ability at 8 years of age. *Applied Psycholinguistics, 6(2)*, 141-160.

Munro, J. (1999). Learning more about learning improves teacher effectiveness. *School Effectiveness and School Improvement, 10*(2), 151-171.

Nelson, L.R. (December 2001). *Item analysis for tests and surveys: Using LERTAP [Laboratory of Educational Research Test Analysis Package] 5.* Perth, Australia: Curtin University of Technology.

Nippold, M.A. (1991). Evaluating and enhancing idiom comprehension in language-disordered students. *Language, Speech, and Hearing Services in Schools, 22*, 100-106.

Nippold, M.A., Allen, M.M., & Kirsch, D.I. (2001). Proverb comprehension as a function of reading proficiency in preadolescents. *Language, Speech, and Hearing Services in Schools, 32*, 90-100.

Nippold, M.A., Taylor, C.L. (2002). Judgements of idiom familiarity and transparency: A comparison of children and adolescents. *Journal of Speech, Language, and Hearing Research, 45*(2), 384-391.

Nolen, P. A., McCutchen, D., & Berninger, V. (1990). Ensuring tomorrow's literacy: A shared responsibility. *Journal of Teacher Education, 41*(3), 63-72.

Nurss, J., & McGauvran, M. (1976). *Metropolitan readiness test: Teachers' manual* (level2). New York: Harcourt Brace Jovanovich.

O'Connor, R. E. (1999). Teachers learning ladders to literacy. *Learning Disabilities Research & Practice, 14*(4), 203-214.

O'Grady, W., & Pobrorolsky, M (Eds.). (1992). *Contemporary linguistic analysis: An introduction (2nd ed).* Toronto, ON: Copp Clark Pitman.

Owens, R.E. (1992). *Language development: An introduction (3rd ed).* New York: Macmillan Publishing Company.

Paris, S.G., Lipson, M.Y., & Wixson, K.K. (1983). Becoming a strategic reader. *Contemporary Educational Psychology, 8*(3), 293-316.

Parker, F. (1986). *Linguistics for non-linguists.* Austin, TX: Pro-Ed.

Perfetti, C. A., & Sandak, R. (2000). Reading optimally builds on spoken language: Implications for deaf readers. *Journal of Deaf Studies and Deaf Education, 5*(1), 32-50.

Pershey, M.G. (1998). Teaching children to identify and respond to pragmatic language functions in narrative text. *Reading Improvement, 35*(4), 146-166.

Piaget, J., & Inhelder, B. (1959). *La genese des structures logiques elementaires.* Paris: PUF.

Psychological Corporation Harcourt Brace Jovanovich, Inc. (1989). *Stanford Achievement Test,* (8th ed., Form K, Advanced 1). San Antonio, TX: Psychological Corporation Harcourt Brace Jovanovich, Inc.

Rath, L.K. (1994). *The phonemic awareness of reading teachers: Examining aspects of knowledge.* Unpublished doctoral dissertation, Harvard University, Cambridge, MA.

Rogers, W.T. (1999). *Error of measurement and validity.* Edmonton, AB.

Roth, F.P., Speece, D.L., & Cooper, D.H. (2002). A longitudinal analysis of the connection between oral language and early reading. *The Journal of Educational Research, 95*(5), 259-272.

Roth, F.P., & Spekman, N.J. (1991). Higher-order language processes and reading disabilities. In A.G. Kamhi & H.W. Catts (Eds.), *Reading disabilities: A developmental language perspective* (pp. 159-197). Needham Heights, MA: Allyn & Bacon.

Saskatchewan Education. (2002). *English language arts: A curriculum guide for the elementary level.* Regina, SK: Saskatchewan Education.

Seidenberg, P.L., & Bernstein, D.K. (1986). The comprehension of similes and metaphors by learning-disabled and nonlearning-disabled children. *Language, Speech, and Hearing Services in Schools*, *17*, 207-218.

Semel, E., Wiig, E., & Secord, W. (1987). *Clinical Evaluation of Language Fundamentals-Revised.* New York: Psychological Corporation.

Shulman, L. S. (1986). Those who understand: Knowledge growth in teaching. *Educational Researcher, 15*(2), 4-14.

Shulman, L. S. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review, 57*, 1-22.

Shulman, L. S. (1988). A union of insufficiencies: Strategies for teacher assessment in a period of educational educational reform. *Educational Leadership, 46*, 36-41.

Skinner, B. F. (1957). *Verbal behaviour.* New York: Appleton-Century-Crofts.

Smith, F. (1977). The uses of language. *Language Arts, 54*(6), 638-644.

Snow, C.E., & Burns, M.S. (Eds.). (1998). *Preventing reading difficulties in young children.* Washington, DC: National Academy Press.

Speake, J. (Ed.). (1999). *The oxford dictionary of idioms.* Oxford: Oxford University Press.

Spear-Swerling, L., & Sternberg, R. J. (1994). The road not taken: An integrative theoretical model of reading disability. *Journal of Learning Disabilities, 27,* 91-103, 122.

Stanovich, K. E. (1986). Matthew effects in reading: Some consequences of individual differences in the acquisition of literacy. *Reading Research Quarterly, 21,* 360-407.

Stanovich, K. E. (1988). Explaining the differences between the dyslexic and the garden-variety poor reader: The phonological-core variable-difference model. *Journal of Learning Disabilities, 21,* 590-604, 612.

Stanovich, K. E., & Siegel, L. S. (1994). Phenotypic performance profile of children with reading disabilities: A regression-based test of the phonological-core variable-difference model. *Journal of Educational Psychology, 86,* 24-53.

Stothard, S. E., Snowling, M. J., Bishop, D. V. M., Chipchase, B. B., & Kaplan, C. A. (1998). Language-impaired preschoolers: A follow-up into adolescence. *Journal of Speech, Language, and Hearing Research, 41,* 407-418.

Swan, D., & Goswami, U. (1997). Picture naming deficits in developmental dyslexia: The phonological representation hypothesis. *Brain and Language, 56,* 334-353.

Swank, L. K. (1994). Phonological coding abilities: Identification of impairments related to phonologically based reading problems. *Topics in Language Disorders,14*(2), 56-71.

Swank, L. K., & Catts, H. W. (1994). Phonological awareness and written word decoding. *Language, Speech, and Hearing Services in Schools, 25*, 9-14.

Torgesen, J. K. (1988). Studies of children with learning disabilities who perform poorly on memory span tasks. *Journal of Learning Disabilities, 21*, 605-612.

Torgesen, J. K., Wagner, R. K., & Rashotte, C. A. (1994). Longitudinal studies of phonological processing and reading. *Journal of Learning Disabilities, 27*, 276-286.

University of Alberta. (2002). *University of Alberta 2002/2003 calendar*. Edmonton, AB: Office of the Registrar and Student Awards, University of Alberta.

University of Saskatchewan. (2003). *University of Saskatchewan 2003/2004 calendar*. Saskatoon, SK: Student Record Services, and Student and Enrolment Services Division, University of Saskatchewan.

van Kleeck, A., Gillam, R. B., & McFadden, T. U. (1998). A study of classroom-based phonological awareness training for preschoolers with speech and/or language disorders. *American Journal of Speech-Language Pathology, 7*(3), 65-76.

Vellutino, F. R., Scanlon, D. M., Sipay, E. R., Small, S. G., Chen, R., & Pratt, A., et al. (1996). Cognitive profiles of difficult-to-remediate and readily remediated poor readers: Early intervention as a vehicle for distinguishing between cognitive and experiential deficits as basic causes of specific reading disabilities. *Journal of Educational Psychology, 88*, 601-638.

Vellutino, F.R., Scanlon, D.M., Small, S.G., & Tanzman, M.S. (1991). The linguistic bases of reading ability: Converting written to oral language. *Text, 11*(1), 99-133.

Vellutino, F. R., Scanlon, D. M., & Spearing, D. (1995). Semantic and phonological coding in poor and normal readers. *Journal of Experimental Child Psychology, 59*, 76-123.

Wayne, A.J., & Youngs, P. (2003). Teacher characteristics and students achievement gains: A review. *Review of Educational Research, 73*, 89-122.

Webster, P. (1999). Innovative models of phonological awareness education in university curricula: The university of New Hampshire. *Language Learning and Education, 6*(1), 33-35.

Whitaker, H. A., & Noll, J. D. (1972). Some linguistic parameters of the Token Test. *Neuropsychologia, 10*, 395-404.

Wiig, E.H., & Semel, E.M. (1973). Comprehension of linguistic concepts requiring logical operations by learning-disabled children. *Journal of Speech and Hearing Research, 16*(4), 627-636.

Wiig, E.H., & Semel, E.M. (1984). *Language assessment and intervention for the learning disabled* (2nd ed.). Columbus, OH: Charles E. Merrill Publishing Company.

Wilkinson, L.C., & Milosky, L.M. (1987). School-age children's metapragmatic knowledge of requests and responses in the classroom. *Topics in Language Disorders, 7*(2), 61-70.

Wilson, A. (1999). *Language knowledge for primary teachers: A guide to textual, grammatical and lexical study.* London: David Fulton Publishers.

Woolfolk, A.E., Winne, P.H., & Perry, N.E. (2000). Educational psychology: Canadian edition. Scarborough, ON: Allyn & Bacon.

Yule, G. (1996). *Pragmatics.* New York: Oxford University Press.

Appendix A

Questionnaire: Draft One

- **Before you complete this questionnaire, please note that although it appears lengthy prior administrations showed teachers needed approximately 30 minutes to complete it.**
- **Please seal your completed questionnaire in the provided University of Alberta envelope to ensure confidentiality.**
- **Thank you for helping with this research project.**

ORAL LANGUAGE QUESTIONNAIRE

1. **Use the following set of words to answer the three questions below. All of these words/terms describe or are related to a specific subject (superordinate or main category), and can be categorized or grouped under five sub-category headings. All of the category headings are already included amongst these words.**

paper
softwood
hardwood
paneling
parts
guitar

maple
beams
mulch
birch
branch
skidder

rope
pine
oak
root
truck
products

bark
axe
chain saw
kindling
needle
trees

tools
spruce
mahogany
leaf
trunk

1. a. **The main category heading is ____________________.**

1. b. **The five sub-category headings under which the rest of these words can be grouped:**

____

1. c. **Give two examples of terms, from the above list, that would fall under two of the category headings you identified above.**

Category 1: _______________ **Category 2:** _______________

Example 1: _______________ **Example 1:** _______________

Example 2: _______________ **Example 2:** _______________

2. **Underline the base word (free morpheme) from which each longer word is constructed.**

tearful
warmly
kingdom
knighthood
misspell
humourous
fortunate
unlike
return

3. **Identify all of the morphemes in these words.**

watchdog
mistletoe
piped
dodgers
telemarketing
odometer
prevaricate
contract
injection
biodegradable

4. **Speakers use different styles or registers during verbal exchanges. These styles often vary in different environments and with different listeners. Match the most appropriate verbal exchange (numbered below) to the following speaker and listener combinations.**

a. ____ Speaker: University student
Listener: University professor
Location: Meeting in professor's office

____ Speaker: Teenager
Listener: Friend
Location: High school cafeteria

____ Speaker: University student
Listener: University professor
Location: Over drinks at a bar

(1) My history mark really sucked.
(2) My history mark was much lower than I expected.
(3) My history mark was awful, that test was a real killer.

b. ____ Speaker: Adult
Listener: Unfamiliar Waitress
Location: Leaving A Restaurant

____ Speaker: Adult
Listener: Friend
Location: Leaving A Restaurant

____ Speaker: Adult
Listener: Child
Location: Leaving A Restaurant

(1) Can you hurry up, you're dawdling and I have to be somewhere.
(2) Can we move this along, I have another appointment.
(3) Can we speed this up, I'm not getting any younger.

5. **Explain the ambiguity of the following sentences by providing two sentences that paraphrase the two meanings. Example: *She can't bear children* can mean either *She can't give birth to children* or *She can't tolerate children.***

a. He waited by the bank.

____

____

____

b. Is he really that kind?

____

____

____

c. The proprietor of the fish store was the sole owner.

____

____

____

d. The long drill was boring.

____

____

____

e. When he got the clear title to the land, it was a good deed.

____

____

____

6. For each word on the left, determine the number of syllables and the number of morphemes.

	Syllables	**Morphemes**
salamander	______	______
crocodile	______	______
attached	______	______
unbelievable	______	______
finger	______	______
pies	______	______
gardener	______	______
psychometric	______	______

7. Underline the consonant blends (consonant cluster or sequence) (not every word has a blend).

pumpkin

doubt

known

squawk

first

scratch

8. **Language use can be categorized according to seven functions (Bainbridge & Malicky, 2000; Halliday, 1977). These language functions include:**

   (i) **Instrumental** (language as a means of getting things, satisfying material needs)

   (ii) **Regulatory** (controlling the behaviour, feelings, or attitudes of others)

   (iii) **Interactional** (getting along with others, establishing relative status and separate means)

   (iv) **Personal** (expressing individuality, awareness of self, pride)

   (v) **Heuristic** (seeking and testing knowledge)

   (vi) **Imaginative** (creating new worlds, making up stories or poems)

   (vii) **Representational** (communicating information, descriptions, expressing propositions)

In each of the following examples, identify which of the seven language functions described above are represented in italics.

a. Child asks grandfather, *"Did grandma always have white hair?"*
Language Function: ______________________

b. Child on the first day of school stands up and tells the class, *"Hi. I'm Tanya, and I just moved into town. And my biggest accomplishment is learning to play the piano."*
Language Function: ______________________

c. Child says to grandmother, *"I wish I was ten feet tall so I could touch the top of that tree."*
Language Function: ______________________

d. Child stands up at the front of the classroom and says, *"This book was about a girl who lived on a farm. It was really funny."*
Language Function: ______________________

e. Child says to his friend, *"Let's pretend you're the cashier and I'm going to buy some food at your store."*
Language Function: ______________________

f. Teacher says to child, *"I told you to open your book to page twelve."*
Language Function: ______________________

g. Child leans over in science class and says to his lab partner, *"I wonder what would happen if I mixed the baking soda and the vinegar together."*
Language Function: ________________________

h. Child raises his hand and shouts to teacher, *"I've got something to tell you."*
Language Function: ________________________

i. During lunch Mrs. Jones tells Mrs. Smith, *"I had a great weekend. My garden has never looked better. How was your weekend?"*
Language Function: ________________________

j. Parent says to child, *"I want you to buy me a loaf of bread when you're at the grocery store."*
Language Function: ________________________

9. Phrases can often be interpreted both literally and figuratively. Imagine you are explaining the meaning of the following phrases to a student. Provide both the literal and figurative interpretations for each item.

Example: "Kick the bucket"
Literal Meaning: Someone used his foot to kick the pail
Figurative Meaning: Someone died

a. **"Get up on the wrong side of the bed"**
Literal Meaning: ____
Figurative Meaning: ____

b. **"Raining cats and dogs"**
Literal Meaning: ____
Figurative Meaning: ____

c. **"Let the cat out of the bag"**
Literal Meaning: ____
Figurative Meaning: ____

d. **"Make the grade"**
Literal Meaning: ____
Figurative Meaning: ____

e. **"Give me a break"**

Literal Meaning: ________________________________

Figurative Meaning: ________________________________

f. **"Blow the whistle"**

Literal Meaning: ________________________________

Figurative Meaning: ________________________________

g. **"Leave her high and dry"**

Literal Meaning: ________________________________

Figurative Meaning: ________________________________

h. **"Until the cows come home"**

Literal Meaning: ________________________________

Figurative Meaning: ________________________________

10. How many speech sounds (phonemes) are in the following words?

ox ________
wrought ________
king ________
thank ________
streamer ________
ship ________
thought ________
precious ________

11. What is the third speech sound (phoneme) in each of the following words?

mix ________
squabble ________
stood ________
socks ________
witchcraft ________

thankyou ________
badger ________
prank ________
chalk ________
washing ________

12. Provide two paraphrases explaining two of the meanings conveyed by each of the following sentences.

Example: The Rabbi **married** my sister.
Meaning one: The Rabbi and my sister got married. .
Meaning two: The Rabbi performed my sister's wedding ceremony.

Example: The police were urged to **stop drinking** by the **fifth**.
Meaning one: The police were urged to stop others from drinking by the fifth of the month.
Meaning two: The police were encouraged to stop themselves from drinking beyond their fifth drink.

a. We laughed at the colourful ball.

____

____

b. He was knocked over by the punch.

____

____

c. I said I would file it next Thursday.

____

____

d. I cannot recommend visiting professors too highly.

____

____

13. Underline the consonant digraphs (not every word has a digraph).

crash

wrap

shepherd

daughter

doubt

think

Draft One Answer Key

- **Before you complete this questionnaire, please note that although it appears lengthy prior administrations showed teachers needed approximately 30 minutes to complete it.**
- **Please seal your completed questionnaire in the provided University of Alberta envelope to ensure confidentiality.**
- Thank you for helping with this research project.

ORAL LANGUAGE QUESTIONNAIRE

1. **Use the following set of words to answer the three questions below. All of these words/terms describe or are related to a specific subject (superordinate or main category), and can be categorized or grouped under five sub-category headings. All of the category headings are already included amongst these words.**

paper
softwood
hardwood
paneling
parts
guitar
maple
beams
mulch
birch
branch
skidder
rope
pine
oak
root
truck
products
bark
axe
chain saw
kindling
needle
trees
tools
spruce
mahogany
leaf
trunk

1. a. **The main category heading is** TREES.

1. b. **The five sub-category headings under which the rest of these words can be grouped:**
SOFTWOOD, HARDWOOD, PRODUCTS, PARTS, TOOLS

1. c. **Give two examples of terms, from the above list, that would fall under two of the category headings you identified above.**

Category 1: ______________ **Category 2:** ______________

Example 1: ______________ **Example 1:** ______________

Example 2: ______________ **Example 2:** ______________

		TREES		
SOFTWOOD	HARDWOOD	PRODUCTS	PARTS	TOOLS
PINE	MAPLE	PAPER	BARK	AXE
SPRUCE	OAK	ROPE	TRUNK	CHAINSAW
	BIRCH	PANELING	ROOT	SKIDDER
	MAHOGANY	MULCH	NEEDLE	TRUCK
		BEAMS	BRANCH	
		KINDLING	LEAF	
		GUITAR		

2. Underline the base word (free morpheme) from which each longer word is constructed.

tearful

warmly

kingdom

knighthood

misspell

humourous

fortunate

unlike

return

3. Identify all of the morphemes in these words.

watch dog

mistletoe

pip ed

dodg er s

tele market ing

odo meter

pre vari cate

con tract

in ject ion

bio de grad able

4. Speakers use different styles or registers during verbal exchanges. These styles often vary in different environments and with different listeners. Match the most appropriate verbal exchange (numbered below) to the following speaker and listener combinations.

a. (2) Speaker: University student
Listener: University professor
Location: Meeting in professor's office

(1) Speaker: Teenager
Listener: Friend
Location: High school cafeteria

(3) Speaker: University student
Listener: University professor
Location: Over drinks at a bar

(1) My history mark really sucked.
(2) My history mark was much lower than I expected.
(3) My history mark was awful, that test was a real killer.

b. (2) Speaker: Adult
Listener: Unfamiliar Waitress
Location: Leaving A Restaurant

(3) Speaker: Adult
Listener: Friend
Location: Leaving A Restaurant

(1) Speaker: Adult
Listener: Child
Location: Leaving A Restaurant

(1) Can you hurry up, you're dawdling and I have to be somewhere.
(2) Can we move this along, I have another appointment.
(3) Can we speed this up, I'm not getting any younger.

5. Explain the ambiguity of the following sentences by providing two sentences that paraphrase the two meanings. Example: *She can't bear children* can mean either *She can't give birth to children* or *She can't tolerate children*.

b. He waited by the bank.

- RIVER BANK
- FINANCIAL INSTITUTION
- GROUP OF SIMILAR OBJECTS CONNECTED IN A LINE

b. Is he really that kind?

- NICE
- TYPE OF PERSON

c. The proprietor of the fish store was the sole owner.

- ONLY OWNER
- OWNED THE FISH OF THE SOLE VARIETY

e. The long drill was boring.
- LONG EXERCISE WAS NOT EXCITING
- LONG COARSE TWILL LINEN/COTTON FABRIC WAS NOT EXCITING

- LONG TOOL WAS DRILLING A HOLE/WELL
- LONG SHELLFISH WAS MAKING A HOLE
- LONG WEST AFRICAN BABOON WAS MAKING A HOLE

e. When he got the clear title to the land, it was a good deed.

CLEAR TITLE:
- NO OTHERS IN HIS WAY/UNOBSTRUCTED
- WELL WRITTEN/INTELLIGIBLE

GOOD DEED
- NICE OF HIM TO DO SO
- PAPER WORK WAS ALL IN ORDER/LEGITIMATE

6. For each word on the left, determine the number of syllables and the number of morphemes.

	Syllables	**Morphemes**
salamander	4	1
crocodile	3	1
attached	2	2
unbelievable	5	3
finger	2	1
pies	1	2
gardener	3	2
psychometric	4	2

7. Underline the consonant blends (consonant cluster or sequence) (not every word has a blend).

pumpkin
doubt
known
squawk
first
scratch

8. **Language use can be categorized according to seven functions (Bainbridge & Malicky, 2000; Halliday, 1977). These language functions include:**

   (i) **Instrumental** (language as a means of getting things, satisfying material needs)

   (ii) **Regulatory** (controlling the behaviour, feelings, or attitudes of others)

   (iii) **Interactional** (getting along with others, establishing relative status and separate means)

   (iv) **Personal** (expressing individuality, awareness of self, pride)

   (v) **Heuristic** (seeking and testing knowledge)

   (vi) **Imaginative** (creating new worlds, making up stories or poems)

   (vii) **Representational** (communicating information, descriptions, expressing propositions)

In each of the following examples, identify which of the seven language functions described above are represented in italics.

a. Child asks grandfather, *"Did grandma always have white hair?"*
Language Function: HEURISTIC

b. Child on the first day of school stands up and tells the class, *"Hi. I'm Tanya, and I just moved into town. And my biggest accomplishment is learning to play the piano."*
Language Function: PERSONAL

c. Child says to grandmother, *"I wish I was ten feet tall so I could touch the top of that tree."*
Language Function: IMAGINATIVE

d. Child stands up at the front of the classroom and says, *"This book was about a girl who lived on a farm. It was really funny."*
Language Function: REPRESENTATIONAL

e. Child says to his friend, *"Let's pretend you're the cashier and I'm going to buy some food at your store."*
Language Function: IMAGINATIVE

f. Teacher says to child, *"I told you to open your book to page twelve."*
Language Function: REGULATORY

g. Child leans over in science class and says to his lab partner, *"I wonder what would happen if I mixed the baking soda and the vinegar together."*
Language Function: HEURISTIC

h. Child raises his hand and shouts to teacher, *"I've got something to tell you."*
Language Function: REPRESENTATIONAL

i. During lunch Mrs. Jones tells Mrs. Smith, *"I had a great weekend. My garden has never looked better. How was your weekend?"*
Language Function: INTERACTIONAL

j. Parent says to child, *"I want you to buy me a loaf of bread when you're at the grocery store."*
Language Function: INSTRUMENTAL

9. Phrases can often be interpreted both literally and figuratively. Imagine you are explaining the meaning of the following phrases to a student. Provide both the literal and figurative interpretations for each item.

Example: "Kick the bucket"
Literal Meaning: Someone used his foot to kick the pail
Figurative Meaning: Someone died

a. **"Get up on the wrong side of the bed"**

Literal Meaning: SOMEONE USUALLY GETS OUT OF THE BED ON THE RIGHT SIDE, BUT GOT OUT ON THE LEFT SIDE TODAY

Figurative Meaning: SOMEONE IS IN A BAD MOOD

b. **"Raining cats and dogs"**

Literal Meaning: CATS AND DOGS ARE FALLING OUT OF THE SKY

Figurative Meaning: HARD RAIN; RAIN IS POURING DOWN

c. **"Let the cat out of the bag"**

Literal Meaning: OPENED A BAG THAT A CAT WAS IN AND LET IT JUMP OUT

Figurative Meaning: REVEALED A SECRET

d. **"Make the grade"**

Literal Meaning: MOVED TO NEXT GRADE LEVEL

Figurative Meaning: PERFORMED TO EXPECTATATION

e. **"Give me a break"**

Literal Meaning: GIVE ME SOME TIME OFF; BREAK ONE OF MY BONES

Figurative Meaning: STOP BUGGING ME; LEAVE ME ALONE

f. **"Blow the whistle"**

Literal Meaning: BLOW AIR INTO A WHISTLE TO MAKE A SOUND

Figurative Meaning: TELL THE AUTHORITIES ABOUT WRONGDOING; TATTLE

g. **"Leave her high and dry"**

Literal Meaning: LEAVE SOMEONE IN DRY/NOT WET IN A HIGH LOCATION

Figurative Meaning: ABANDON SOMEONE; NOT TO ASSIST SOMEONE

h. **"Until the cows come home"**

Literal Meaning: WHEN THE GROUP OF COWS COME BACK TO WHERE THEY LIVE

Figurative Meaning: FOREVER

10. How many speech sounds (phonemes) are in the following words?

ox	3
wrought	3
king	3
thank	4
streamer	6
ship	3
thought	3
precious	6

11. What is the third speech sound (phoneme) in each of the following words?

mix	K	thankyou	NG
squabble	W	badger	DG (J)
stood	OO	prank	A
socks	K	chalk	K
witchcraft	CH	washing	SH

12. Provide two paraphrases explaining two of the meanings conveyed by each of the following sentences.

Example: The Rabbi **married** my sister.
Meaning one: The Rabbi and my sister got married. .
Meaning two: The Rabbi performed my sister's wedding ceremony.

Example: The police were urged to **stop drinking** by the **fifth**.
Meaning one: The police were urged to stop others from drinking by the fifth of the month.
Meaning two: The police were encouraged to stop themselves from drinking beyond their fifth drink.

b. **We laughed at the colourful ball.**

COLOURFUL
- DECORATIVE; BRIGHT
- INTERESTING

BALL
- DANCE
- TOY BALL

b. **He was knocked over by the punch.**

KNOCKED OVER
- STRONGLY AFFECTED
- FELL OVER
- GREATLY IMPRESSED/OVERWHELMED/AMAZED WITH DELIGHT

PUNCH
- POTENT DRINK
- HIT WITH THE FIST

c. **I said I would file it next Thursday.**
- THROW IT OUT
- PUT IT AWAY IN A FILE DRAWER
- SHAPING/SMOOTHING WITH A METAL INSTRUMENT

d. **I cannot recommend visiting professors too highly.**
- DON'T VISIT PROFESSORS' OFFICES
- DON'T VISIT PROFESSORS' OFFICES WHO ARE VISITING FROM OTHER UNIVERSITIES
- PRAISE HIGHLY GOING TO PROFESSORS' OFFICES
- PRAISE HIGHLY GOING TO PROFESSORS' OFFICES WHO ARE VISITING FROM OTHER UNIVERSITIES

13. Underline the consonant digraphs (not every word has a digraph).

crash
wrap

shepherd
daughter

doubt
think

Name of participant (please print): ______________________________

Signature: ______________________________

Date: ______________________________

Signature of Researcher: ______________________________

Laureen McIntyre
Doctoral Candidate, University of Alberta

Name of participant (please print): ______________________________

Signature: ______________________________

Date: ______________________________

Signature of Researcher: ______________________________

Laureen McIntyre
Doctoral Candidate, University of Alberta

Appendix C

Panel Review Forms

Content Analysis of Oral Language Questionnaire

Please find enclosed the review package for evaluating the oral language questionnaire I am developing as part of my dissertation. This tool is being developed to survey teachers' knowledge of oral language. Three domains of language are being represented in this questionnaire: language form (phonology, morphology, syntax), language content (semantics), and language use (pragmatics). Prior to the construction of this questionnaire, four language arts experts from three Canadian Universities were interviewed to assist the researcher in identifying the aspects of oral language essential for teachers to know. Each language arts expert was asked to respond to the question: In the areas of language form (phonology, morphology, syntax), language content (semantics), and language use (pragmatics), what do you think is important for teachers to know? The informants' interviews were reviewed to find themes or areas of importance each expert identified as essential for teachers to know in the areas of language form, content, and use. Questions representing areas of consensus amongst the informants were then incorporated into the questionnaire.

Directions
Three envelopes have been included in this package. Please open each envelope one at a time, complete the task outlined, and then proceed to the next envelope.

Envelope One
This envelope contains a blank copy of the questionnaire. Please complete each of the items in the questionnaire without referring to an answer key. Once this has been completed, please open envelope two.

Envelope Two
This envelope contains the answer key to the questionnaire. Please compare your responses to the propose swers included in the answer key. Throughout this process, please write down any comments you may have. This could include comments regarding item answers, the readability of items, or any suggestions for revisions. Once this has been completed, please open envelope three.

Envelope Three
This envelope contains a summary of the identified areas of importance (content specifications) of each language domain, definitions of each language domain, and a review sheet for you to rate the fit between each item and each language domain being measured (language form, content, and use). Please indicate how representative **each item** in the questionnaire is of each language domain.
Judge each test item solely on the basis of the **match** between the question's **content,** and the **language domain** it was designed to measure (see the language domain definitions and the identified areas of importance in each language domain).

Once completed, all of the information from these three envelopes can be placed in the provided pre-paid self-addressed envelope and returned to me. I would appreciate the return of these rating packages by **Friday July 11, 2003.**

Content Review Form

Reviewer: ______________________ Date: __________________

***NOTE:** **Your name will be removed and replaced with a code number prior to analysis.**

Prior to the construction of this questionnaire, four language arts experts from three Canadian Universities were interviewed to assist the researcher in identifying the aspects of oral language essential for teachers to know. Each language arts expert was asked to respond to the question: In the areas of language form (phonology, morphology, syntax), language content (semantics), and language use (pragmatics), what do you think is important for teachers to know? The informants' interviews were reviewed to find themes or areas of importance each expert identified as essential for teachers to know in the areas of language form, content, and use. Questions representing areas of consensus amongst the informants were then incorporated into the questionnaire.

Directions

Step 1. Please read carefully through the test items, the definitions of the three language domains (language form, content, and use) being represented in this questionnaire (see page 2 of this content review package), and the summary of the areas important for teachers to know in these language domains (see Tables 1, 2, and 3 on pages 3, 4, and 5).

Step 2. Indicate how representative **each item** in the questionnaire is of each language domain (place ratings on the form entitled Item Content Review Form on pages 6, 7 and 8).

Judge each test item solely on the basis of the **match** between the question's **content,** and the **language domain** it was designed to measure (see the language domain definitions and the summary of the identified areas of importance in each language domain).

Please use the five point rating scale shown below:

No Fit	**Minimal**	**Fair**	**Good**	**Excellent Fit**
0	**1**	**2**	**3**	**4**

Please indicate the number corresponding to your rating beside the test item number, and add any comments you have related to the item.

For example

Sample Question: From the list below, find an example of a compound noun:

housefly nameless sleepwalk

compound noun________________________

Question	Item Rating Language Form	Item Rating Language Content	Item Rating Language Use	Comments
Sample	4	1	0	

This item was judged to best represent the domain of language form (i.e., rated 4) and to be minimally related to the domain of language content (i.e., rated 1).

Language Domain Definitions

Language

Language is a very complex system that can best be understood by breaking it down into its functional elements or components. Language can be divided into three major, although not necessarily equal components: form, content, and use (Bloom & Lahey, 1978 cited in Owens, 1992, p. 14).

Language Form

Form includes syntax, morphology, and phonology, the components that connect sounds or symbols with meaning. Traditionally, the study of language has been equated with form only (Owens, 1992, p. 14).

Syntax: "Organizational rules specifying word order, sentence organization, and word relationships" (Owens, 1992, p. 533).

Morphology: "Aspect of language concerned with rules governing change in meaning at the intraword level" (Owens, 1992, p. 528).

Phonology: "Aspect of language concerned with the rules governing the structure, distribution, and sequencing of speech sound patterns" (Owens, 1992, p. 530).

Language Content (Semantics)

Semantics: "Aspect of language concerned with rules governing the meaning or content of words or grammatical units" (Owens, 1992, p. 531).

Language Use (Pragmatics)

Pragmatics: "Aspect of language concerned with language use within a communication context" (Owens, 1992, p. 530).

Table F1. *Language Form: Identified Areas of Importance*

Informant 1	Informant 2	Informant 3	Informant 4
Knowledge of phonology (i.e., related terms)			Knowledge of phonology
			Syntax (difference correct usage, grammar, and syntax; changing word order)
Concept of a word (not one to one correspondence in oral and written language) (i.e., sound-symbol correspondence)	Sentence structure (not a one to one correspondence in oral and written language) (i.e., sound-symbol correspondence)	Understanding phonic language system (make connections between phonic and graphic systems explicit for students)	
Knowledge of how language works (i.e., morphology – changing word tense)			Morphology (related to spelling; derived words, suffixes, and prefixes)
		Competent users of own language	
			Language development

Table F2. *Language Content: Identified Areas of Importance*

Informant 1	Informant 2	Informant 3	Informant 4
Study words to enrich clarity and precision of vocabulary	Knowledge of vocabulary		Understand and use adjectives and adverbs; increase precision/richness of language
How to use context to determine the meaning of word and how the word said (multiple meaning words)	Literary language (idioms, similes, multiple meaning words)		Vocabulary learned in context (different meanings in different regions; multiple meaning words; idioms; metaphoric language)
Distinctions in oral language development (i.e., speaking, reading)			
	Main idea		
		Use variety of sources (dictionaries, thesaurus, etymological sources) efficiently and effectively	

Table F3. *Language Use: Identified Areas of Importance*

Informant 1	Informant 2	Informant 3	Informant 4
	Context (language use; turn taking, questioning, classroom talk, language scripts, language for different situations)	Aware of language registers and how change according to context	Awareness use of language (registers); language use in different cultures (i.e., eye contact, conversational pauses)
		Functions of language (Halliday) and encourage a variety opportunities for students to use for all functional purposes in the classroom	Halliday's functions of language (extent regulatory language in classroom)
Make distinction between comprehension and interpretation			
	Importance of story; story telling/narratives		
Inference (idea of schema; local versus global context)			
			Metalinguistic skills/knowledge

Item Content Review Form

Question	**Item Rating**			***Comments***
	Language Form	**Language Content**	**Language Use**	
1. a.				
1. b.				
1. c.				
2.				
3.				
4. a.				
4. b.				
5. a.				
5. b.				
5. c.				
5. d.				
5. e.				
6.				
7.				

Rating Scale:

No Fit	Minimal	Fair	Good	Excellent Fit
0	**1**	**2**	**3**	**4**

Question	**Item Rating**			***Comments***
	Language Form	**Language Content**	**Language Use**	
8. a.				
8. b.				
8. c.				
8. d.				
8. e.				
8. f.				
8. g.				
8. h.				
8. i.				
8. j.				
9. a.				
9. b.				
9. c.				
9. d.				
9. e.				
9. f.				

Rating Scale:

No Fit	Minimal	Fair	Good	Excellent Fit
0	**1**	**2**	**3**	**4**

Question	**Item Rating**			***Comments***
	Language Form	**Language Content**	**Language Use**	
9. g.				
9. h.				
10.				
11.				
12. a.				
12. b.				
12. c.				
12. d.				
13.				

Rating Scale:

No Fit	Minimal	Fair	Good	Excellent Fit
0	**1**	**2**	**3**	**4**

Appendix D

Summary of Judges' Ratings (Judges 1 – 18)

		Judges' Ratings											
Obj	Item	1			2			3			4		
		LF	LC	LU	LF	LC	LU	LF	LC	LU	LF	LC	LU
1	2	4	0	0	3	0	0	4	0	2	3	4	0
	3	4	0	0	3	0	0	4	0	0	4	3	0
	6	4	0	0	3	0	0	4	4	0	2	4	0
	7	4	0	0	3	0	0	4	4	0	4	0	0
	10	4	0	0	2	0	0	4	0	0	4	0	0
	11	4	0	0	2	0	0	4	3	0	4	0	0
	13	4	0	0	2	0	0	4	0	0	4	0	0
2	1a	0	4	2	0	4	2	0	2	1	4	3	0
	1b	0	4	2	0	4	2	0	2	1	4	3	0
	1c	0	4	2	0	4	2	0	2	1	4	3	0
	5a	0	2	4	0	3	3	0	3	3	2	4	0
	5b	0	2	4	0	3	3	0	3	3	2	4	0
	5c	0	3	4	0	3	3	0	3	2	2	4	0
	5d	0	2	4	0	3	3	0	3	3	2	4	0
	5e	0	3	4	0	2	2	0	3	3	2	4	0
	9a	0	0	4	0	3	4	0	4	3	0	4	0
	9b	0	0	4	0	3	4	0	4	3	0	4	0
	9c	0	0	4	0	3	4	0	4	3	0	4	0
	9d	0	0	4	0	3	4	0	2	2	0	4	0
	9e	0	0	4	0	3	4	0	4	4	0	4	0
	9f	0	0	4	0	3	4	0	3	4	0	4	0
	9g	0	0	4	0	3	4	0	3	4	0	4	0
	9h	0	0	4	0	3	4	0	2	4	0	4	0
	12a	0	0	4	0	3	2	0	3	3	0	4	0
	12b	0	0	4	0	3	2	0	3	3	0	4	0
	12c	0	0	4	0	3	2	0	2	3	0	4	0
	12d	0	0	4	0	2	2	0	3	3	0	4	0
3	4a	0	2	4	0	1	4	0	3	3	0	0	4
	4b	0	2	4	0	1	4	0	3	3	0	0	4
	8a	0	1	4	0	2	4	0	4	4	0	0	4
	8b	0	1	4	0	2	4	0	2	4	0	0	4
	8c	0	1	4	0	2	4	0	4	4	0	0	4
	8d	0	1	4	0	2	4	0	4	4	0	0	4
	8e	0	1	4	0	2	4	0	4	4	0	0	4
	8f	0	1	4	0	2	4	0	4	4	0	0	4
	8g	0	1	4	0	2	4	0	4	4	0	0	4
	8h	0	1	4	0	2	4	0	4	4	0	0	4
	8i	0	1	4	0	2	4	0	4	4	0	0	4
	8j	0	1	4	0	2	4	0	4	4	0	0	4

Summary of Judges' Ratings (Judges 1 – 18) Continued

Judges' Ratings

Obj	Item	5			6			7			8		
		LF	LC	LU	LF	LC	LU	LF	LC	LU	LF	LC	LU
1	2	4	2	0	4	2	0	4	3	1	4	0	0
	3	4	2	0	4	2	0	4	3	1	4	0	0
	6	4	1	0	4	0	0	4	2	2	4	0	0
	7	4	1	0	4	0	0	4	2	2	4	0	0
	10	4	0	0	4	0	0	4	1	1	4	0	0
	11	4	0	0	4	0	0	4	0	0	4	0	0
	13	4	0	0	4	0	0	4	1	1	4	0	0
2	1a	0	3	2	0	4	2	1	4	1	0	4	0
	1b	0	3	2	0	4	2	1	4	1	0	4	0
	1c	0	3	2	0	4	2	1	4	3	0	4	0
	5a	0	4	3	3	0	0	0	2	2	0	2	4
	5b	0	4	3	3	0	0	0	3	2	0	2	4
	5c	0	4	3	3	0	0	0	3	3	0	2	4
	5d	0	4	3	3	0	0	0	3	3	0	2	4
	5e	0	4	3	3	0	0	0	2	2	0	2	4
	9a	0	4	3	3	0	0	1	3	4	2	0	4
	9b	0	4	3	3	0	0	1	3	4	2	0	4
	9c	0	4	3	3	0	0	1	4	4	2	0	4
	9d	0	4	3	3	0	0	1	3	4	2	0	4
	9e	0	4	3	3	0	0	1	4	4	2	0	4
	9f	0	4	3	3	0	0	1	4	4	2	0	4
	9g	0	4	3	3	0	0	1	3	3	0	2	4
	9h	0	4	3	3	0	0	1	3	3	0	2	4
	12a	0	4	3	1	3	0	1	3	4	0	2	4
	12b	0	4	4	1	3	0	1	3	3	0	2	4
	12c	0	4	4	1	3	0	1	4	4	0	2	4
	12d	0	4	4	1	3	0	1	2	2	0	2	4
3	4a	0	2	4	0	0	4	0	2	4	0	2	4
	4b	0	2	4	0	0	2	1	3	2	0	2	4
	8a	0	2	4	0	0	4	1	4	3	0	2	4
	8b	0	2	4	0	0	4	1	3	4	0	2	4
	8c	0	2	4	0	0	4	1	3	3	0	2	4
	8d	0	2	4	0	0	4	1	2	2	0	2	4
	8e	0	2	4	0	0	4	1	4	4	0	2	4
	8f	0	2	4	0	0	4	1	4	4	0	2	4
	8g	0	2	4	0	0	4	1	3	3	0	2	4
	8h	0	2	4	0	0	4	1	4	4	0	2	4
	8i	0	2	4	0	0	4	1	3	4	0	2	4
	8j	0	2	4	0	0	4	1	3	3	0	2	4

Summary of Judges' Ratings (Judges 1 – 18) Continued

Judges' Ratings

Obj	Item	9			10			11			12		
		LF	LC	LU	LF	LC	LU	LF	LC	LU	LF	LC	LU
1	2	4	0	0	4	0	0	3	0	0	4	2	0
	3	4	0	0	4	0	0	3	0	0	4	2	1
	6	2	0	0	4	1	0	2	0	0	4	1	0
	7	2	0	0	4	1	0	2	0	0	4	0	0
	10	0	0	0	4	0	0	0	1	0	4	0	0
	11	0	0	0	4	0	0	1	0	0	4	0	0
	13	1	0	0	4	0	0	1	0	0	4	0	0
2	1a	1	4	2	4	4	0	0	4	0	1	4	2
	1b	1	4	2	1	4	0	0	4	0	2	4	2
	1c	1	4	2	1	4	0	0	4	0	0	4	0
	5a	2	3	4	0	1	4	0	4	0	0	4	1
	5b	2	3	4	0	1	4	0	4	0	0	4	1
	5c	2	3	4	0	1	4	0	4	0	0	4	1
	5d	2	3	4	0	1	4	0	4	0	0	4	1
	5e	2	3	4	0	1	4	0	4	0	0	4	1
	9a	0	0	4	0	4	1	0	3	0	0	3	4
	9b	0	0	4	0	4	1	0	3	0	0	3	4
	9c	0	0	4	0	4	1	0	3	0	0	3	4
	9d	0	0	4	0	4	1	0	3	0	0	3	4
	9e	0	0	4	0	4	1	0	2	0	0	3	4
	9f	0	0	4	0	4	1	0	3	0	0	3	4
	9g	0	0	4	0	4	1	0	3	0	0	3	4
	9h	0	0	4	0	4	1	0	3	0	0	3	4
	12a	3	4	4	0	4	1	1	0	0	0	4	2
	12b	3	4	4	0	4	1	0	3	0	0	4	2
	12c	3	4	4	0	4	1	0	3	0	0	4	2
	12d	3	4	4	0	4	1	0	3	0	0	4	2
3	4a	0	2	4	0	1	4	0	0	4	1	2	4
	4b	0	2	4	0	1	4	0	0	2	1	2	3
	8a	2	3	4	0	1	4	0	0	4	0	2	3
	8b	2	3	4	0	1	4	0	0	4	0	2	3
	8c	2	3	4	0	1	4	0	0	4	0	2	3
	8d	2	3	4	0	1	4	0	0	4	0	2	3
	8e	2	3	4	0	1	4	0	0	4	0	2	3
	8f	2	3	4	0	1	4	0	0	4	0	2	3
	8g	2	3	4	0	1	4	0	0	4	0	2	3
	8h	2	3	4	0	1	4	0	0	4	0	2	3
	8i	2	3	4	0	2	4	0	0	4	0	2	3
	8j	2	3	4	0	1	4	0	0	4	0	2	3

Summary of Judges' Ratings (Judges 1 – 18) Continued

Judges' Ratings

Obj	Item	13			14			15			16		
		LF	LC	LU	LF	LC	LU	LF	LC	LU	LF	LC	LU
1	2	4	4	1	4	0	1	3	2	0	4	0	0
	3	4	4	1	4	0	1	3	1	0	4	0	0
	6	4	3	4	4	0	2	3	2	1	4	0	0
	7	4	0	0	4	0	1	3	1	1	4	0	0
	10	4	1	1	4	1	0	3	1	1	4	0	0
	11	4	1	1	4	1	0	3	1	1	4	0	0
	13	4	0	0	4	0	0	3	1	1	4	0	0
2	1a	1	4	1	3	3	0	0	2	0	0	3	1
	1b	1	4	1	3	4	2	0	2	0	0	3	1
	1c	1	4	1	3	4	2	0	2	0	0	3	1
	5a	4	4	2	1	4	4	1	2	2	0	4	2
	5b	4	4	3	1	4	4	1	3	2	0	4	2
	5c	4	4	3	1	4	4	1	3	2	0	4	2
	5d	4	4	3	1	4	4	1	2	2	0	4	2
	5e	4	4	3	1	4	4	1	2	2	0	4	2
	9a	1	3	3	0	1	4	1	3	3	0	2	4
	9b	1	3	3	0	1	4	1	3	3	0	2	4
	9c	1	3	3	0	1	4	1	3	3	0	2	4
	9d	1	3	3	0	1	4	1	3	3	0	2	4
	9e	1	3	3	0	1	4	1	3	3	0	2	4
	9f	1	3	3	0	1	4	1	3	3	0	2	4
	9g	1	3	3	0	1	4	1	3	3	0	2	4
	9h	1	3	3	0	1	4	1	3	3	0	2	4
	12a	2	3	4	1	4	2	1	3	3	0	4	2
	12b	2	3	4	1	4	2	1	3	3	0	4	2
	12c	2	3	4	1	4	2	1	3	3	0	4	2
	12d	3	3	4	1	4	2	1	3	3	0	4	2
3	4a	1	3	3	1	2	4	1	1	3	0	2	4
	4b	1	3	3	1	2	4	1	1	3	0	2	4
	8a	1	3	4	0	1	4	1	2	3	0	0	4
	8b	1	3	4	0	1	4	1	2	3	0	0	4
	8c	1	3	4	0	1	4	1	2	3	0	0	4
	8d	1	3	4	0	1	4	1	2	3	0	0	4
	8e	1	3	4	0	1	4	1	2	3	0	0	4
	8f	1	3	4	0	1	4	1	2	3	0	0	4
	8g	1	3	4	0	1	4	1	2	3	0	0	4
	8h	1	3	4	0	1	4	1	2	3	0	0	4
	8i	1	3	4	0	1	4	1	2	3	0	0	4
	8j	1	3	4	0	1	4	1	2	3	0	0	4

Summary of Judges' Ratings (Judges 1 – 18) Continued

		Judges' Ratings					
Obj	Item	17			18		
		LF	LC	LU	LF	LC	LU
1	2	4	0	0	4	1	0
	3	4	0	0	4	1	0
	6	4	0	0	4	1	0
	7	3	0	0	4	0	0
	10	4	0	0	4	0	0
	11	2	0	0	4	0	0
	13	4	0	0	4	0	0
2	1a	0	4	4	0	4	0
	1b	0	4	2	0	4	0
	1c	0	0	4	0	4	0
	5a	0	4	3	1	3	0
	5b	0	4	2	1	3	0
	5c	0	4	2	1	3	0
	5d	0	3	2	2	3	0
	5e	0	3	2	1	3	0
	9a	0	3	3	1	4	2
	9b	0	3	3	1	4	2
	9c	0	3	3	1	4	2
	9d	0	3	3	1	4	2
	9e	0	3	3	1	4	2
	9f	0	3	3	1	4	2
	9g	0	3	3	1	4	2
	9h	0	3	3	1	4	2
	12a	0	0	4	4	2	0
	12b	0	0	4	2	4	0
	12c	0	0	4	1	4	0
	12d	0	0	4	4	2	0
3	4a	0	0	4	1	1	4
	4b	0	0	4	1	1	4
	8a	0	3	4	1	1	4
	8b	0	3	4	1	1	4
	8c	0	3	4	1	1	4
	8d	0	3	4	1	1	4
	8e	0	3	4	1	1	4
	8f	0	3	4	1	1	4
	8g	0	3	4	1	1	4
	8h	0	3	4	1	1	4
	8i	0	3	4	1	1	4
	8j	0	3	4	1	1	4

Note. 1= Domain of Language Form; 2 = Domain of Language Content; 3 = Domain of Language Use; Mdn = Median; R = Range; Discr Mdn = Judge's Discrepancy from the Median; LF = Language Function Ratings; LC = Language Content Ratings; LU= Language Use Ratings.

Appendix E

Judges' Written Feedback on Oral Language Questionnaire

Question 1:

Judge 1

- It took a while for me to figure this out. It is an excellent question. I was looking for a word like "forestry." Well done.

Judge 3

- Difficult vocabulary for non-mainstream Canadian teachers

Judge 4

- Ropes can be made of other fibres as well (e.g., plastic, beads, and hemp)
- Rope was problematic for me in that it could also be viewed as a "tool" in the logging industry

- My biggest concern is that background knowledge will play such a large part in answering this question (background knowledge of content [vocabulary]). Regional/occupation influences will come into play. Anyone near the forestry industry in B.C for example, anyone acquainted with the pulp and paper industry, etc. etc, will have what I viewed is the requisite knowledge in a narrow area that enables one to be about to complete the "language task." You need to ask yourself what is it that I really want to learn by giving respondents this question. If it is knowledge of vocabulary directly associated with a "specialized area," then your question is "on." If not, then, please rethink the question. You may want to be "testing" knowledge of semantics, but I do think here is a problem here with having "specialized" knowledge…or not having it! This may result in some confounding.

Judge 6

- In cabinet making, maple is considered a relatively soft wood (I just remodelled my kitchen and this is what the cabinet-maker told me)

Judge 7

- Very difficult to judge what you are looking for – unclear

Judge 8

- (a, b, c) I don't see what this has to do with oral language teaching
- (Directions-"All of the category headings…) I missed this, try ALL CAPS

Judge 10

- A model classification activity

Judge 11

- I read this to mean the main category name was not in the list. I think the heading "trees" is not the best term – the list seems to deal more with the harvesting, use and types of trees. Having selected "forestry" as the main heading, I did not have room for softwood and hardwood categories. Not using trees as the main category name had consequences for me on the question too.
- Need to revise the instruction for 1a and 1c

Judge 12

- No problem with this – and I like the idea of featuring/focusing on language as a system of related meanings
- (a) Obviously this is semantic – emphasis on content, but it helps to know how these terms are conventionally used and that trees is a noun (so form)
- (b and c) Same as above – but in determining semantic relations for and use come into play

Judge 13

- This was fun

Judge 14

- Dif between story and category

Judge 15

- Very specific to one topic: lumbering
- Interesting task
- Skidder: OK, but obscure

Judge 18

- How does my solution work? I think it accounts for all your items (i.e., tree species, tree parts, forest products, forestry tools, wood types). These three (products, parts, tools) aren't at the equivalent level of abstraction as your first two; if trees is the superordinate

Question 2

Judge 6

- (base word/free morpheme) These are really two different things when you look at Latinate words such as "kingdom." A teacher who has taken a linguistics course that deals with the history of the English language might correctly see "-dom" as the stem, from Latin "domus" and therefore take "-dom" as the base. See "domicile," "domesticate," "kingdom," surfdom."
- I suggest you separate out Anglo-Saxon derived words from Greco-Latinate derived words

Judge 8

- I don't see what this has to do with oral language teaching

Judge 11

- "humourous" – spelling error

Judge 13

- (fortunate) No free morpheme, because "e" is gone (isn't "for" because meaning changes when it stands alone?)

Judge 14

- Students don't need this technical knowledge in order to be skillful language users, but it would be helpful

Judge 18

- Straight forward

Question 3

Judge 5

- (dodgers: dodge ers) I also repeated letters- something I seem to remember doing long ago when I fist did this. I am not sure if I've always had it wrong or if things changed. I don't work with this any more.

Judge 6

- (prevaricate) Similar to problem above. This is a Latin derived word which is treated as one unit today. The "pre'" is not a real prefix here – it doesn't mean "before" in this word. Again, I suggest you distinguish between present –day productive prefixes and suffixes, like "tele" and those that are less productive.

Judge 8

- I don't see what this has to do with oral language teaching

Judge 11

- Say how you want the answers to be provided

Judge 13

- (odometer, prevaricate, injection) check if vari-, -cate, and –ject have meaning

Judge 14

- Students don't need this technical knowledge in order to be skillful language users, but it would be helpful

Judge 15

- Need to know history of the word to judge this

Judge 18
- "Identify": using what kind of representation? Maybe illustrate in an example?

Question 4

Judge 6
- (b) "move this along" makes no sense in a restaurant setting. "Move along" sounds more appropriate for a meeting (office meeting or faculty meeting).
- (Can we speed this up, I'm not getting any younger) Too sarcastic for a typical adult to use to a friend.

Judge 7
- (a) (Part 1) 1 is also possible here; (Part 2) 1 is also possible here; (Part 3) 1 and 2 are also possible here

- (b) (Part 1) Could also be 1 and even 3; (Part 2) Could be either; depends on the context; (Part 3) Could be either; depends on the context, but most likely 1; As noted either could have said this - Lacks sufficient context to decide unequivocally; context and use are not exclusive

Judge 8
- (a, b) Very important oral language skill
- (b) All seemed quite rude for ANY audience

Judge 9
- (b) Yes, I can see this in context, if 3 was said sarcastically with a smile, otherwise reserved for someone you don't care about.

Judge 10
- (a and b) Pragmatics

Judge 11
- (b) "Waitress" – I don't like this as used to address a "server." Note: "waitress" is a word to avoid these days

Judge 12
- Emphasis is clearly on pragmatics but semantics needed to interpret fit to context
- (a) These were quite straightforward
- (b) Both 2/3 possible – it was not difficult to imagine relationships situations where both responses could be quite appropriate; (1) was easily matched; Rated 3 because ambiguous

Judge 13
- (a) Part 3 – I still don't like this one; I picked this one by default. I don't think it is appropriate at all. Drinks at a bar isn't a time for students to bring this up

- (b) Part 2 and 3 – I didn't even try these; I honestly can't pick the difference. They both sound rude to me.

Judge 18

- Okay, nice item
- (b) are these going to be a bit too easy for native speakers?

Question 5:

Judge 2

- Some of these are very culturally specific

Judge 3

- Directions not clear/difficult
- (c) Too esoteric/almost a "pun"
- (e) Again, too artificial

Judge 4

- Some have more than 2 meanings (see d and e). The use of "the 2 meanings" might suggest there are only two meanings. That could limit people in their thought processes or like to me, suggest there were only two, when I know there were more (Don't cause cognitive confusion with your directions).

- Your example was not helpful to me in that it gave no indication of how much of the sentence you wanted paraphrased. As someone who knows about ambiguity in language, I suspected what the focus of the ambiguity was, knew that some sentences (like d and e) have several spots but was still perplexed by your instructions and example.

- (e) I believe that this question requires some specialized knowledge that is going to confound what your appear to be seeking to find out (requires too much "specialized" knowledge)

Judge 6

- (d) "drill" also exercise, e.g., a marching band

Judge 7

- (a) Context not exclusive
- (b) "Kind" could also be used sarcastically – context
- (c and d) Context dependent
- (e) Actually not a meaningful or it is an awkward instruction

Judge 8

- (a, b, c, d, e) Very important oral language skill

- (c) Doesn't make sense – what kind of fish store would have only sole? Or an owner who only owned the sole?

Judge 9
- And many more…

Judge 10
- (a, b, c, d, e) Sociolinguistics

Judge 11
- How did you want these to be shown? The instruction says provide 2 sentences.
- (d) 3 possibilities have then

Judge 12
- Again, no difficulty with any of these and would expect these items to be enjoyed by those completing questionnaire
- I think one needs to look beyond the normal ways of use to detect the ambiguity, which is why use is rated as minimal

Judge 13
- Maybe highlight just the word when you ask the question so they don't write down a whole sentence
- Were you asking just for two? Or all of the meanings?
- (e) I missed "clear title." Was this a trick in that it was the only one to have two things to change?

Judge 14
- Close reading the rest of story would provide greater context i.e., you'd know the meaning from larger context.

Judge 15
- In the sentence context, some of the meanings you accept are not possible (see a, d, e)
- (a) "group of similar objects" doesn't make much sense here, or at least, obscure use
- (d) "long coarse fabric/long shellfish/baboon:" obscure; are these probable meaning for this sentence?
- (e) "well written/intelligible" is this meaning for this sentence?

Judge 17
- (e) Not as strong

Judge 18
- (e) answer (coarse twill, baboon) bit esoteric

Question 6:

Judge 4
- (crocodile) Why do I deep getting 4 on this one over and over again? Is there 100% agreement on this one…or is there room for interpretation? From a linguistic perspective probably not!

Judge 6
- (psychometric) I see three morphemes here (1. psych(o) 2. metr 3. ic)

Judge 7
- Depends on whether these words were in context or isolation how one would note it for pragmatics (use)

Judge 8
- I don't see what this has to do with oral language teaching

Judge 9
- (Syllables) Dialect dependent

Judge 10
- Phonologic (a reading act-bottom up)

Judge 11
- I don't think this is a very useful knowledge for teachers

Judge 13
- (salamander) Does meaning of –er count in this particular word?
- (crocodile) Not meaning of "-ile")
- (finger) Same question as salamander

Judge 18
- Some problems here-pretty obscure items
- (unbelievable) four morphemes not three un/be/lieve/able (Why? "lieve" productive in relieve)
- (psychometric) three morphemes not two psycho/metr(e)/ic (productive in "metre")

Question 7

Judge 1

- At this point I realized I didn't know the difference between a consonant cluster and a digraph. I didn't go to look it up in a book, but it made me aware.

Judge 5

- I've clearly forgotten what blends are.

Judge 6

- This question will be confusing to most teachers. You phrase it like a phonology question when you use terms such as "consonant cluster or sequence" but reading (phonics – decoding) where the appropriate label is "blend." I suggest you label the various section of this questionnaire so teachers know what aspect of language you are focusing upon. Otherwise the terminological differences between linguistics and reading will cause confusion.

Judge 8

- I don't see what this has to do with oral language teaching
- (psychometric) Not meter + ic (I'm not sure either!)

Judge 10

- Phonologic (a reading act-bottom up)

Judge 12

- This was humbling for me as I realized I was not clear about whether "silent letters" counted (doubt/known) – also the distinction between blend and digraph

Judge 16

- "consonant blends (consonant cluster or sequence)" This part was confusing. I know what a blend is, but though a consonant cluster included such combinations as "tch" or "kn". Should just leave it as "consonant blends"

Judge 18

- (pumpkin) why not include "k" (mpk)
- (first) don't you count /r/ as a consonant
- There may be some conflict here between the language arts concept of blend (orthographic) and the linguistic concept of consonant cluster or sequence (phonetic)

Question 8:

Judge 3
- (Directions) "best" represented?
- Note that language functions are not always discrete, depending on speaker's purpose (i.e., (c) imaginative or personal; (e) imaginative/instrumental; (j) instrumental/regulatory
- (e) Functions are not always discrete – I can't be.
- (j) Could b across functions

Judge 4
- (b) I debated over this one since it was a toss-up for me between (iii) and (iv). Surely there is some of the interactional in here. Are all these seven categories so mutually exclusive that language can be categorized so "clearly?" I have doubted this exclusivity for years!! (could fit under 2 categories in language use).

Judge 5
- (b) I would also argue for this one (interactional). I would say it wavers.
- (h) Another waver for me (instrumental)

Judge 6
- (e) Here the child is giving a direction to another child so it could be construed as regulatory language
- (h) I would disagree here. The content of what the child subsequently says is representational, but the child's attempt to get the teacher's attention is instrumental.

Judge 7
- (a) Though ambiguous
- (f) Love would matter here
- (h) 4 or 7
- (j) 1 could also be 3 depending on tone; Context dependent

Judge 8
- (Bainbridge & Malicky, 2000 – crossed out) Halliday seminal work
- (b) Interactional
- (j) Regulatory

Judge 10
- Tied to language use but very seldom use in classroom instruction

Judge 11
- This is a good set of questions

Judge 12

- Item is aimed at function therefore use, but a person interprets function via form and semantics
- But form/content does not necessarily reveal speakers' intention
- This section was problematic for me because (1) language utterances are typically multifunctional (2) without the context it is hard to determine what the speaker's intention is, and (3) although I had no difficulty determining/anticipating which would be the expected correct answer, I found I could easily make a plausible case for several of the categorized functions for each of the examples given
- Re the instructions – perhaps it would be clearer if you indicated explicitly that you wanted (1) only one of the 7 categories possible for each example or (2) invited responders to indicate which categories/functions could plausibly apply. I think the exercise undercuts the complexity of real language in use.

Judge 13

- (b) Personal or interactional (same as (i)).
- (h) I disagree. He isn't describing but asking her to stop so he can describe. To me, this was regulatory or interactional

Judge 14

- I'm not sure if you're asking: (a) is the question itself form/content/use or (b) is the ability to categorize the question form/content or use. Knowing to use colloquialisms is, in all these cases as per 8 a (i.e., these are exercises about language use)

Judge 15

- (b, e, j) Multiple right answers
- (h) Not just one answer but this is acceptable

Judge 16

- (b) Still feel it fits with interactional as she could have been trying to establish her status in class via piano playing
- (h) Depends on his motivation. The verb "shouts" suggests he is trying to control.

Judge 18

- You might want to ask respondents which is the predominant function or model, since Halliday (1973) notes that beyond earliest language, we exploit multiple functions of ordinary talk
- Thus, would you accept alternatives because of multiple functionality?
- e.g., (h)

Question 9:

Judge 3
- These are very idiosyncratic – may be cultural problems

Judge 4
- (d) Are you sure this is the literal meaning? Did this phrase originate in the world of education or outside of it? Can't it mean get to the next level, whether it is on a hill or a mountain?

- (e) I don't think your figurative meaning is exactly on…it is often said in derision to statements made by others!

Judge 7
- (a) Context dependent

Judge 8
- (d) Poor example – omit (or grade in road?)
- (g) Poor example (Sailing term! Boat on shoal)

Judge 10
- Useful for studying semantic aspects of word meaning

Judge 12
- Understanding of literal meaning (semantics/content) and usage (pragmatics) necessary here. So both apply.
- I though this section had merit – intention was clear – examples all accessible – appropriate

Judge 13
- (d) I thought it was a grade for a bank or a road (like what a grader does)
- (e) This doesn't make sense to me, but I guess its okay as an alternative; figurative: give me a chance

Judge 15
- (h) for a long period of time?

Judge 16
- I find it hard to distinguish between content and pragmatics when it comes to figurative language because both deal with meanings but also meaning in context

Judge 18
- These might be a bit easy for native speakers, thus serve as measure of linguistic enculturation; I found these time consuming. Would 3-4 items establish the point?

Question 10:

Judge 2
- If "thank" has four phonemes, then ng/nk can't be the third phoneme. This is inconsistent with #11.

Judge 3
- (precious) Depends on your pronunciation

Judge 4
- (thank) I said 3. Isn't a "nasal" (an) considered one sound? I could be incorrect.
- (precious) I get 5 – p / r / e / sh / s. (How many of us hear or enunciate the "i" when we say precious?). Phonemes are speech sounds. There is no sound-symbol association at this level yet.

Judge 6
- (streamer) 7 (s/ t/ r/ iy/ m/ e / r)

Judge 7
- Context dependent

Judge 8
- Oral Language? Not for teachers?

Judge 11
- Honestly, who cares. This, I believe, is trivial knowledge

Judge 12
- I found this tricky (and am embarrassed to admit it) missed 3 of them – am putting it down to British articulation difference

Judge 13
- (thank) I had 3. (th a nk). If "ng" is a phoneme, shouldn't "nk" be?

Judge 18
- Good item; uncontroversial; requires good level of linguistic awareness

Question 11

Judge 1

- On some of these I wasn't paying attention and miscounted. I kept doing the fourth. Makes me realize I have forgotten a great deal about phonemes and morphemes

Judge 2

- "Thank you" is two words

Judge 3

- Not sure how they were to be written

Judge 4

- (thank you) Again I put "k" because of how I understand the nasal. I could be wrong. I forget how linguists treat it.

Judge 5

- I need some more practice!

Judge 6

- (stood – oo; witchcraft – ch) Very confusing. A well-trained teacher will automatically use whatever phonemic transcription she has learned. You've confused alphabetic spelling and phonemic transcription here.

Judge 8

- Oral Language? Not for teachers?

Judge 9

- I'm not sure if the phonemic alphabet is what you intended here – I'm not familiar with the letters/symbols provided

Judge 11

- Honestly, who cares. This, I believe, is trivial knowledge

Judge 12

- I recorded this using the letters rather than the sounds- but understood the point (despite seeming not to).

Question 12

Judge 2

- Perhaps ask for 2 contexts in which the sentence might be used
- (d) Too ambiguous

Judge 3

- Are there too many of these?
- (c) A bit obscure, perhaps.

Judge 4

- (Provide two paraphrases) This is better in terms of directions as I understand that while there might be more than two paraphrases, I was asked to provide only two
- (d) (visiting professors) How many teachers are even familiar with the meaning of the title, a "visiting professor?"
- (Don't visit professors' offices and praise highly going to professors' offices) I disagree with these two. It seems to me once one interprets "visiting" to be the adjective describing a kind of professor (from another U) then one cannot infer/interpret anything in there that has to do with visiting their offices help!
- Fit is good in this category, but I still think it is a poor question for this category

Judge 5

- I think the instructions could be more specific
- (a) I missed doing colourful - I did not read carefully enough.
- (b) Same here – I thought to pick and explain it both ways.

Judge 7

- (a) Context is important again
- (c) Context again

Judge 8

- I only ever use this sentence in one way!

Judge 12

- (a, b, c) All of these examples were appropriate – clear
- (d) I don't accept 2 answers as accurate paraphrases of the meaning; but do appreciate the potential ambiguity of initial "cannot recommend"

Judge 13

- (a) "decorative/bright; interesting" I didn't get this distinction. Took colourful thinking
- (b) "knocked over" I had passed out.
- (d) Why is "offices" here [in the answers]. Should it have been in the original sentence.

Judge 16

- I guess I'm still somewhat confused by the overlapping of content and pragmatics

Judge 18
- a. Notice you've conflated lexical (ball) with syntactic ambiguity
- b. Two items or one
- c. "Answer: throw it out" Are you sure? Seems bizarre to me.
- d. Again one item or two
- Fun stuff, but instructions might alert respondent to multiple elements embedded

Question 13

Judge 1
- As I said earlier, I don't know the difference between a digraph and a consonant cluster

Judge 4
- (daughter) Why not this one? Let me think (augh = ah) so its' not a consonant digraph. That's the catch! Tricky.

Judge 5
- (crash) I though both (i.e., cr, sh)
- Need more practice here too

Judge 6
- Same problem as earlier question – you want a phonics answer. I think teachers need to be told this a phonics question, not a linguistics one

Judge 8
- Oral Language? Not for teachers?

Judge 11
- Again trivial

Judge 13
- I almost put in the ones with silent letters, but if I did that, then all the words would be underlined. That's how I knew not to do it.

Judge 18
- A linguist, like me, won't know this term (consonant digraphs) and might be inclined to look for phonetic consonant clusters (as I did). However, most teachers will get this term I'm sure

General Comments

Judge 6

- You've completely left out genre and register on your questionnaire, yet these are mostly what language arts teachers deal with.

- Some groups appear to be repetitions of earlier parts of your questionnaire – e.g., phonics appears in two different places, Q7 and Q13. Why?

- What language arts teachers are required to tech is found in provincial (Canada) and state guidelines. I suggest you consult these, otherwise a critic could disregard everything you say because it bears no relationship to what teachers really do.. Take a look at the very detailed California standards, for instance at http://www.sdcoe.k12.ca.us/stand/std.html. Also see the articles: What Elementary Teachers Need to Know About Language (ERIC digest Lily Wong Fillmore and Catherine Snow) http://www.cal.org/ericcll/digest/0006fillmore.html also www.cal.org/ericcll/Teachers.pdf. There is a link to the PDF version at the digest site.

Judge 10

- I had some difficulty conceptualizing this as an oral language questionnaire. Your model is so linguistically oriented that I had difficulty allowing sociolinguistics or phenomenology into your framework.

Judge 11

- It would be helpful if you had a linguist advise you. You are a bit overrepresented in the form category. I think, well 7 questions out of 13
- What would the consequences be for your study if you used the term "concept" instead of "semantics." The first question, which is very interesting, uses a strategy called concept attainment (Bruner)
- I did not find the table showing responses of language arts experts to be very helpful. Their responses needed to be classified or categorized. I did not see how your questionnaire was closely mediated by their answers
- I think Question 1 needs a hit of fine-tuning as I indicated in my marginal comment.

Judge 12

- I've been thinking about your study…your questionnaire did prove successful in my case in altering me to the fact that I'd let my knowledge of digraphs and blends and morphemes – the technical descriptors of the sound patterns/rules – get rusty…so it was a useful exercise in that sense (and, as I noted, humbling). I haven't been working closely with that level of language for a long while now (and will admit to always questioning the value of making explicit some of these differentiations)…but that's no excuse.

- However, your larger question…what is it important for language arts teachers to know about language is obviously one that I wrestle with all the time. Lately, issues of understanding how one's culture permeates and shapes one's language and identity have been at the forefront for me…so I was pleased to see you trying to include notions of register. The function range of language – what people use language to do, and do with language – is rich and important…which is one reason why any attempt to make one-to-one equivalencies or limit function to a single one strikes me as a patent underrepresentation of its power/point/purposes…and that is what I was trying to communicate in my response to the function questions you posed. It wasn't that I couldn't see which function the statement was suppose to achieve…or which was the intended best answer…it's that I think questions of this sort reify a simple view of language, and ultimately that can be costly.

Judge 14

- Language content is best understood in a meaningful context (I believe). So discrete parts of a sentence don't equal content or context in my understanding. I believe much of this instruction has to do with a mechanical study of a language, valuable in itself, but in order to be part of language arts, must be seen in a whole and holisitic study of literature.

Judge 15

- An issue with all of this is, do you want to measure competence in usage, or declarative knowledge about linguistics? And is knowledge about language learning and teaching more important? It would be the case that a few of these areas are very easy for students to learn, e.g., syntax, while others are difficult, e.g., phonemic awareness

- Also, for teaching I think knowledge of genre structure is crucial for teaching reading and writing

- Your survey seems to combine some measures of language competence, with some measures of the ability to measure theoretical knowledge about linguistics. It could be worth considering when each of these would be important for teachers. In considering what linguistic knowledge is important for teachers, one approach would be to work backward: First, what is important and difficult for children? Then, based on this, what do teachers need to know about language learning to teach this? Then, what do teachers need to know about language to understand language learning? So basically, taking a "pedagogical content knowledge" perspective. This could shift one's view of what is important somewhat. For example, your emphasis on teachers' phonemic awareness and knowledge about phonemic awareness meshes nicely with the fact that phonemic awareness is difficult for many students, so teachers need to know this, know how to teach phonemic awareness, and know what phonemes are, etcetera. On the other hand, an emphasis on syntax would be relatively unimportant, because most students develop syntactic complexity naturally, although students from homes where standard English is not spoken may show unconventional grammar and usage.

- Conversely, more emphasis may be needed on topics that have not traditionally focal in linguistics, but that are important for literacy education. Notably, children often have difficulty acquiring a repertoire of writing genre and their associated such as persuasive writing, procedural writing, explanation , and so forth. Persuasive writing, for example, requires a differentiation and coordination of claim and evidence, description of contrary claims, rebuttals of these claims, and so forth. Anecdotally, I have found that may teachers are poor at reading and writing arguments and other genre, and often oblivious to argument structure. For example, I had this discussion with a teacher doing her M.Ed.:

- Prof: "In your paper, you need to give reasons for your claims. You need to try to persuade the reader."

- Grad Student: "You mean you want more details?

- Prof: "What I mean is, you were trying to persuade the reader of [X], so you need to tell the reader whey you believe [X]."

- Grad Student: You mean you want more information?"

- So they probably have difficulty teaching persuasive writing well.

Appendix F

Questionnaire: Draft Two

ORAL LANGUAGE QUESTIONNAIRE

- Before you complete this questionnaire, please note that although it appears lengthy prior administrations showed teachers needed approximately 30 minutes to complete it.
- Please seal your completed questionnaire in the provided prepaid University of Alberta envelope to ensure confidentiality, and return it by mail.
- Thank you for helping with this research project.

1. Use the following set of words to answer the three questions below. All of these words/terms describe or are related to a specific subject (superordinate or main category), and can be categorized or grouped under five sub-category headings. All of the category headings are already included amongst these words.

paper
softwood
hardwood
paneling
parts
guitar
maple
beams
mulch
birch
branch
skidder
rope
pine
oak
root
truck
products
bark
axe
chain saw
kindling
needle
trees
tools
spruce
mahogany
leaf
trunk

1. a. The main category heading is ________________.

1. b. The five sub-category headings under which the rest of these words can be grouped:

____

1. c. Give two examples of terms, from the above list, that would fall under two of the sub-category headings you identified above.

Category 1: ______________ **Category 2:** ______________

Example 1: ______________ **Example 1:** ______________

Example 2: ______________ **Example 2:** ______________

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 1 when you are teaching Kindergarten to Grade 3 children to read (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

2. Circle the free morpheme from which each longer word is constructed.

tearful

warmly

kingdom

knighthood

misspell

humourous

fortunate

unlike

return

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 2 when you are teaching Kindergarten to Grade 3 children to read (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

3. Identify and circle all of the morphemes in these words (circle each morpheme).

watchdog

contract

odometer

piped

dodgers

telemarketing

mistletoe

injection

biodegradable

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 3 when you are teaching Kindergarten to Grade 3 children to read (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

4. **Speakers use different styles or registers during verbal exchanges. These styles often vary in different environments and with different listeners. Match the most appropriate verbal exchange (numbered below) to the following speaker and listener combinations.**

a. ____ Speaker: University student
Listener: University professor
Context: Meeting in professor's office. Questioning a poor grade received on a midterm exam.

____ Speaker: Teenager
Listener: Friend
Context: High school cafeteria. Commenting on a poor grade received on a midterm exam.

____ Speaker: University student
Listener: University professor
Context: Over drinks at a bar. Commenting on a poor grade received on a midterm exam.

(1) My history mark really sucked.
(2) My history mark was much lower than I expected.
(3) My history mark was awful, that test was a real killer.

b. ____ Speaker: Adult
Listener: Unfamiliar Waitress
Location: Waiting for the bill so can leave a restaurant for a meeting at the office.

____ Speaker: Adult
Listener: Friend
Location: Waiting for friend to pay the bill so can leave a restaurant for a meeting at the office.

____ Speaker: Adult
Listener: Child
Location: Waiting for child to get ready so can leave a restaurant for a meeting at the child's school.

(1) Hurry up, you're dawdling and I have to be somewhere.
(2) I need to leave now, I have an appointment.
(3) Can we speed this up, I'm not getting any younger.

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 4 when you are teaching Kindergarten to Grade 3 children to read (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

5. **The following sentences contain word(s) that have more than one meaning. Identify the multiple meaning word(s), and provide two paraphrases explaining two of the possible meanings of each sentence (Note: Some sentences may contain more than one multiple meaning word).**

Example: ***She can't bear children*** **can mean either**
(1) ***She can't give birth to children*** **or (2)** ***She can't tolerate children*****.**

a. He waited by the bank.

____

____

____

b. Is he really that kind?

____

____

____

c. The proprietor of the fish store was the sole owner.

____

____

____

d. The long drill was boring.

____

____

____

e. When he got the clear title to the land, it was a good deed.

____

____

____

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 5 when you are teaching Kindergarten to Grade 3 children to read (Please circle your response).

Not Important				Very Important
0	**1**	**2**	**3**	**4**

6. For each word on the left, determine the number of syllables and the number of morphemes.

	Syllables	Morphemes
salamander	______	______
crocodile	______	______
attached	______	______
unbelievable	______	______
finger	______	______
pies	______	______
gardener	______	______
psychometric	______	______

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 6 when you are teaching reading to Kindergarten to Grade 3 children to read (Please circle your response).

Not Important				Very Important
0	**1**	**2**	**3**	**4**

7. Circle the consonant blends (not every word has a blend).

pumpkin known first

doubt squawk scratch

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 7 when you are teaching Kindergarten to Grade 3 children to read (Please circle your response).

Not Important				Very Important
0	1	2	3	4

8. Language use can be categorized according to seven functions (Bainbridge & Malicky, 2000; Halliday, 1977). These language functions include:

(i) **Instrumental** (language as a means of getting things, satisfying material needs)

(ii) **Regulatory** (controlling the behaviour, feelings, or attitudes of others)

(iii) **Interactional** (getting along with others, establishing relative status and separate means)

(iv) **Personal** (expressing individuality, awareness of self, pride)

(v) **Heuristic** (seeking and testing knowledge)

(vi) **Imaginative** (creating new worlds, making up stories or poems)

(vii) **Representational** (communicating information, descriptions, expressing propositions)

In each of the following examples, identify which one of the seven language functions described above are best represented in italics.

a. Child asks grandfather while looking at family photos, *"Did grandma always have white hair?"*
Language Function: ________________________

b. Child on the first day of school tells her teacher, *"I won a prize for playing the piano yesterday."*
Language Function: ________________________

c. Child says to grandmother while out walking in the park, *"What if I was ten feet tall and I could touch the top of that tree."*
Language Function: ______________________

d. Child stands up at the front of the classroom to report on a book she has read and says, *"This book says that pigs sleep in the mud."*
Language Function: ______________________

e. Child says to his friend during free play period in the Kindergarten room, *"I like to pretend I'm a mom who's going to buy some food at your store."*
Language Function: ______________________

f. For the third time during math class the teacher says to the child, *"I told you to open your book to page twelve."*
Language Function: ______________________

g. Child leans over in science class and says to his lab partner, *"What would happen if I mixed the baking soda and the vinegar together."*
Language Function: ______________________

h. Child tells teacher during a class discussion in language arts, *"The boy was lying in the story and not telling the truth."*
Language Function: ______________________

i. During lunch Mrs. Jones tells Mrs. Smith, *"I had a great weekend. My garden has never looked better. How was your weekend?"*
Language Function: ______________________

j. Mother is feeding the baby and says to her older child, *"I need you to buy me a loaf of bread from the grocery store because I can't go out right now."*
Language Function: ______________________

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 8 when you are teaching Kindergarten to Grade 3 children to read (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

9. Phrases can often be interpreted both literally and figuratively. Imagine you are explaining the meaning of the following phrases to a student. Provide both the literal and figurative interpretations for each item.

Example: "Kick the bucket"
Literal Meaning: Someone used his foot to kick the pail
Figurative Meaning: Someone died

a. **"Get up on the wrong side of the bed"**

Literal Meaning: ________________________________

Figurative Meaning: ________________________________

b. **"Raining cats and dogs"**

Literal Meaning: ________________________________

Figurative Meaning: ________________________________

c. **"Let the cat out of the bag"**

Literal Meaning: ________________________________

Figurative Meaning: ________________________________

d. **"Make the grade"**

Literal Meaning: ________________________________

Figurative Meaning: ________________________________

e. **"Give me a break"**

Literal Meaning: ________________________________

Figurative Meaning: ________________________________

f. **"Blow the whistle"**

Literal Meaning: ________________________________

Figurative Meaning: ________________________________

g. **"Leave her high and dry"**

Literal Meaning: ________________________________

Figurative Meaning: ________________________________

h. **"Until the cows come home"**

Literal Meaning: ____

Figurative Meaning: ____

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 9 when you are teaching Kindergarten to Grade 3 children to read (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

10. How many speech sounds (phonemes) are in the following words?

ox ________
wrought ________
king ________
thank ________
streamer ________
ship ________
thought ________
precious ________

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 10 when you are teaching Kindergarten to Grade 3 children to read (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

11. What is the third speech sound (phoneme) in each of the following words?

mix ________
squabble ________
stood ________
socks ________
witchcraft ________

thank you ________
badger ________
prank ________
chalk ________
washing ________

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 11 when you are teaching Kindergarten to Grade 3 children to read (Please circle your response).

Not Important				Very Important
0	1	2	3	4

12. The following sentences can be interpreted, as a whole, to have more than one meaning. Provide paraphrases explaining two of the possible meanings conveyed by each of the following sentences.

Example: The Rabbi **married** my sister.
Meaning one: The Rabbi and my sister got married. .
Meaning two: The Rabbi performed my sister's wedding ceremony.

Example: The police were urged to **stop drinking by the fifth**.
Meaning one: The police were urged to stop others from drinking by the fifth of the month.
Meaning two: The police were encouraged to stop themselves from drinking beyond their fifth drink.

a. We laughed at the colourful ball.

____

____

b. He was knocked over by the punch.

____

____

c. I said I would file it next Thursday.

____

____

d. I cannot recommend visiting professors too highly.

____

____

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 12 when you are teaching Kindergarten to Grade 3 children to read (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

13. Circle the consonant digraphs (not every word has a digraph).

crash	shepherd	doubt
wrap	daughter	think

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 13 when you are teaching Kindergarten to Grade 3 children to read (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

14. Now that you have been out of university/college and worked in the school environment, what do you believe was missing (if anything) from your university/college training program in the area of reading?

15. Are there any areas or topics you would like to learn more about during future inservices or professional development opportunities in the area(s) of:

(1) Language and/or communication.

(2) Reading/Language Arts

(3) Special Education.

(4) Other Areas (Please indicate any specific topics that would be of interest)

Please complete the following identifying information.

1. Name__________________________________ Code: _________________

   ****NOTE: Your name will be removed and replaced with a code number prior to analysis.**

2. Gender (Please circle) Male Female

3. Age ________

4. Please indicate all degree(s) you have completed and your area(s) of specialization in each degree (e.g., Bachelor of Education -Elementary education with English major)

   a. Bachelor's in ______________________________________
   b. Master's in ____
   c. Doctorate in _______________________________________
   d. Other ____

5. Please indicate any degree(s) you are currently working on completing and your area(s) of specialization.

   a. Bachelor's in ____
   b. Master's in ____
   c. Doctorate in ____
   d. Other ____

6. List any languages, other than English, in which you are a proficient speaker.

   ____

7. Please indicate the number of *university/college* courses you have taken in each of the following areas (Give your best estimate if you can not recall specific numbers).

   a. I have taken ___ Linguistics courses.

   b. I have taken ___ English (i.e., literature) courses.

   c. I have taken ___ Teaching English As A Second Language courses.

   d. I have taken ___ Language Arts courses (i.e., curriculum courses in reading, writing, etc.).

8. Please indicate the number of hours of *continuing education* and/or *inservice time* you have had in each of the following areas (Give your best estimate if you can not recall specific numbers):

   a. I have ___ continuing education/inservice hours in the area of Linguistics.

   b. I have ___ continuing education/inservice hours in the area of English (i.e., literature).

   c. I have ___ continuing education/inservice hours in the area of Teaching English As A Second Language.

   d. I have ___ continuing education/inservice hours in the area of Language Arts.

9. Please fill in the following information regarding your teaching experience:

Years of Full-Time Teaching	Years of Part-Time Teaching	Years as a Substitute Teacher	Total Number Years Have Taught
Year(s)	Year(s)	Year(s)	Year(s)

Years Taught in Kindergarten to Grade 3	Years Taught in Grades 4 to 6	Years Taught in Grades 7 to 8	Years Taught in Grades 9 to 12
Year(s)	Year(s)	Year(s)	Year(s)

10. What grade level(s) are you currently teaching? ____________

11. Please indicate any specific reading or language arts programs you use in your classroom (e.g., Reading Recovery). ___________________________________

Draft Two Answer Key

ORAL LANGUAGE QUESTIONNAIRE

- Before you complete this questionnaire, please note that although it appears lengthy prior administrations showed teachers needed approximately 30 minutes to complete it.

- Please seal your completed questionnaire in the provided prepaid University of Alberta envelope to ensure confidentiality, and return it by mail.

- Thank you for helping with this research project.

1. Use the following set of words to answer the three questions below. All of these words/terms describe or are related to a specific subject (superordinate or main category), and can be categorized or grouped under five sub-category headings. All of the category headings are already included amongst these words.

paper
softwood
hardwood
paneling
parts
guitar
maple
beams
mulch
birch
branch
skidder
rope
pine
oak
root
truck
products
bark
axe
chain saw
kindling
needle
trees
tools
spruce
mahogany
leaf
trunk

1. a. The main category heading is TREES.

1. b. The five sub-category headings under which the rest of these words can be grouped:
SOFTWOOD, HARDWOOD, PRODUCTS, PARTS, TOOLS

1. c. Give two examples of terms, from the above list, that would fall under two of the sub-category headings you identified above.

Category 1: _______________ **Category 2:** _______________

Example 1: _______________ **Example 1:** _______________

Example 2: _______________ **Example 2:** _______________

TREES

SOFTWOOD	HARDWOOD	PRODUCTS	PARTS	TOOLS
PINE	MAPLE	PAPER	BARK	AXE
SPRUCE	OAK	ROPE	TRUNK	CHAINSAW
	BIRCH	PANELING	ROOT	SKIDDER
	MAHOGANY	MULCH	NEEDLE	TRUCK
		BEAMS	BRANCH	
		KINDLING	LEAF	
		GUITAR		

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 1 when you are teaching Kindergarten to Grade 3 children to read (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

2. Circle the free morpheme from which each longer word is constructed.

tearful

warmly

kingdom

knighthood

misspell

humourous

fortun(e)ate

unlike

return

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 2 when you are teaching Kindergarten to Grade 3 children to read (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

3. Identify and circle all of the morphemes in these words (circle each morpheme).

watchdog (watch-dog)

contract (contract)

odometer (odo-meter)

piped (pip(e) – ed)

dodgers (dodg(e)-er-s)

telemarketing (tele-market-ing)

mistletoe (mistletoe)

injection (inject-ion)

biodegradable (bio-de-grade(e)-able)

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 3 when you are teaching Kindergarten to Grade 3 children to read (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

4. Speakers use different styles or registers during verbal exchanges. These styles often vary in different environments and with different listeners. Match the most appropriate verbal exchange (numbered below) to the following speaker and listener combinations.

a. 2 Speaker: University student
Listener: University professor
Context: Meeting in professor's office. Questioning a poor grade received on a midterm exam.

1 Speaker: Teenager
Listener: Friend
Context: High school cafeteria. Commenting on a poor grade received on a midterm exam.

3 Speaker: University student
Listener: University professor
Context: Over drinks at a bar. Commenting on a poor grade received on a midterm exam.

(1) My history mark really sucked.
(2) My history mark was much lower than I expected.
(3) My history mark was awful, that test was a real killer.

b. 2 Speaker: Adult
Listener: Unfamiliar Waitress
Location: Waiting for the bill so can leave a restaurant for a meeting at the office.

3 Speaker: Adult
Listener: Friend
Location: Waiting for friend to pay the bill so can leave a restaurant for a meeting at the office.

1 Speaker: Adult
Listener: Child
Location: Waiting for child to get ready so can leave a restaurant for a meeting at the child's school.

(1) Hurry up, you're dawdling and I have to be somewhere.
(2) I need to leave now, I have an appointment.
(3) Can we speed this up, I'm not getting any younger.

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 4 when you are teaching Kindergarten to Grade 3 children to read (Please circle your response).

Not Important				Very Important
0	**1**	**2**	**3**	**4**

5. The following sentences contain word(s) that have more than one meaning. Identify the multiple meaning word(s), and provide two paraphrases explaining two of the possible meanings of each sentence (Note: Some sentences may contain more than one multiple meaning word).

Example: *She can't bear children* can mean either
(1) *She can't give birth to children* or (2) *She can't tolerate children*.

a. He waited by the bank.

- RIVER BANK
- FINANCIAL INSTITUTION
- GROUP OF SIMILAR OBJECTS CONNECTED IN A LINE

b. Is he really that kind?

- NICE
- TYPE OF PERSON

c. The proprietor of the fish store was the sole owner.

- ONLY OWNER
- OWNED THE FISH OF THE SOLE VARIETY

d. The long drill was boring.

- EXERCISE WAS NOT EXCITING
- COARSE TWILL LINEN/COTTON FABRIC WAS NOT EXCITING

- TOOL WAS DRILLING A HOLE/WELL
- SHELLFISH WAS MAKING A HOLE
- WEST AFRICAN BABOON WAS MAKING A HOLE

e. When he got the clear title to the land, it was a good deed.

CLEAR TITLE:
- NO OTHERS IN HIS WAY/UNOBSTRUCTED
- WELL WRITTEN/INTELLIGIBLE

GOOD DEED
- NICE OF HIM TO DO SO
- PAPER WORK WAS ALL IN ORDER/LEGITIMATE

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 5 when you are teaching Kindergarten to Grade 3 children to read (Please circle your response).

Not Important				Very Important
0	1	2	3	4

6. For each word on the left, determine the number of syllables and the number of morphemes.

	Syllables	Morphemes
salamander	4	1
crocodile	3	1
attached	2	2
unbelievable	5	3
finger	2	1
pies	1	2
gardener	3	2
psychometric	4	2

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 6 when you are teaching reading to Kindergarten to Grade 3 children to read (Please circle your response).

Not Important				Very Important
0	1	2	3	4

7. Circle the consonant blends (not every word has a blend).

pumpkin known first

doubt squawk scratch

"Consonant cluster: Adjacent consonants within a syllable, before or after a vowel sound; oral language equivalent of the term consonant blend"(Moats, 2000, p. 231).

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 7 when you are teaching Kindergarten to Grade 3 children to read (Please circle your response).

Not Important				Very Important
0	**1**	**2**	**3**	**4**

8. Language use can be categorized according to seven functions (Bainbridge & Malicky, 2000; Halliday, 1977). These language functions include:

(i) **Instrumental** (language as a means of getting things, satisfying material needs)

(ii) **Regulatory** (controlling the behaviour, feelings, or attitudes of others)

(iii) **Interactional** (getting along with others, establishing relative status and separate means)

(iv) **Personal** (expressing individuality, awareness of self, pride)

(v) **Heuristic** (seeking and testing knowledge)

(vi) **Imaginative** (creating new worlds, making up stories or poems)

(vii) **Representational** (communicating information, descriptions, expressing propositions)

In each of the following examples, identify which one of the seven language functions described above are best represented in italics.

a. Child asks grandfather while looking at family photos, *"Did grandma always have white hair?"*
Language Function: HEURISTIC

b. Child on the first day of school tells her teacher, *"I won a prize for playing the piano yesterday."*
Language Function: PERSONAL

c. Child says to grandmother while out walking in the park, *"What if I was ten feet tall and I could touch the top of that tree."*
Language Function: IMAGINATIVE

d. Child stands up at the front of the classroom to report on a book she has read and says, *"This book says that pigs sleep in the mud."*
Language Function: REPRESENTATIONAL

e. Child says to his friend during free play period in the Kindergarten room, *"I like to pretend I'm a mom who's going to buy some food at your store."*
Language Function: IMAGINATIVE

f. For the third time during math class the teacher says to the child, *"I told you to open your book to page twelve."*
Language Function: REGULATORY

g. Child leans over in science class and says to his lab partner, *"What would happen if I mixed the baking soda and the vinegar together."*
Language Function: HEURISTIC

h. Child tells teacher during a class discussion in language arts, *"The boy was lying in the story and not telling the truth."*
Language Function: REPRESENTATIONAL

i. During lunch Mrs. Jones tells Mrs. Smith, *"I had a great weekend. My garden has never looked better. How was your weekend?"*
Language Function: INTERACTIONAL

j. Mother is feeding the baby and says to her older child, *"I need you to buy me a loaf of bread from the grocery store because I can't go out right now."*
Language Function: INSTRUMENTAL

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 8 when you are teaching Kindergarten to Grade 3 children to read (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

9. **Phrases can often be interpreted both literally and figuratively. Imagine you are explaining the meaning of the following phrases to a student. Provide both the literal and figurative interpretations for each item.**

Example: "Kick the bucket"
Literal Meaning: Someone used his foot to kick the pail
Figurative Meaning: Someone died

a. **"Get up on the wrong side of the bed"**

Literal Meaning: SOMEONE USUALLY GETS OUT OF THE BED ON THE RIGHT SIDE, BUT GOT OUT ON THE LEFT SIDE TODAY

Figurative Meaning: SOMEONE IS IN A BAD MOOD/BAD TEMPERED ALL DAY

b. **"Raining cats and dogs"**

Literal Meaning: CATS AND DOGS ARE FALLING OUT OF THE SKY

Figurative Meaning: HARD RAIN; RAIN IS POURING DOWN

c. **"Let the cat out of the bag"**

Literal Meaning: OPENED A BAG THAT A CAT WAS IN AND LET IT JUMP OUT

Figurative Meaning: REVEALED A SECRET

d. **"Make the grade"**

Literal Meaning: MOVED TO NEXT GRADE LEVEL

Figurative Meaning: PERFORMED TO EXPECTATATION; SUCCEED; REACH THE DESIRED STANDARD

e. **"Give me a break"**

Literal Meaning: GIVE ME SOME TIME OFF; BREAK ONE OF MY BONES

Figurative Meaning: STOP BUGGING ME; LEAVE ME ALONE; STOP PUTTING PRESSURE ON SOMEONE ABOUT SOMETHING; EXCLAMATION "GIVE ME A BREAK!" USED TO EXPRESS CONTEMPTUOUS DISAGREEMENT OR DISBELIEF ABOUT WHAT HAS BEEN SAID

f. **"Blow the whistle"**

Literal Meaning: BLOW AIR INTO A WHISTLE TO MAKE A SOUND

Figurative Meaning: TELL THE AUTHORITIES ABOUT WRONGDOING; EXPOSE (SOMEONE'S) ILLEGAL OR SECRET ATIONS TO PUBLIC SCRUTINY OR INVESTIGATION WITH INTENTION OF HAVING THEM STOPPED; TATTLE

g. **"Leave her high and dry"**

Literal Meaning: LEAVE SOMEONE IN DRY/NOT WET IN A HIGH LOCATION; IN LITERAL SENSE USED EXPECIALLY OF SHIPS LEFT STRANDED BY THE SEA AS THE TIDE EBBS

Figurative Meaning: ABANDON SOMEONE; NOT TO ASSIST SOMEONE; OUT OF THE WATER; IN A DIFFICULT POSITION

h. **"Until the cows come home"**

Literal Meaning: WHEN THE GROUP OF COWS COME BACK TO WHERE THEY LIVE

Figurative Meaning: FOREVER; FOR AN INDEFINITELY LONG TIME

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 9 when you are teaching Kindergarten to Grade 3 children to read (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

10. How many speech sounds (phonemes) are in the following words?

ox	3
wrought	3
king	3
thank	4
streamer	6
ship	3
thought	3
precious	6

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 10 when you are teaching Kindergarten to Grade 3 children to read (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

11. What is the third speech sound (phoneme) in each of the following words?

mix	K	thank you	NG
squabble	W	badger	DG (J)
stood	OO	prank	A
socks	K	chalk	K
witchcraft	CH	washing	SH

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 11 when you are teaching Kindergarten to Grade 3 children to read (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

12. The following sentences can be interpreted, as a whole, to have more than one meaning. Provide paraphrases explaining two of the possible meanings conveyed by each of the following sentences.

Example: The Rabbi **married** my sister.
Meaning one: The Rabbi and my sister got married. .
Meaning two: The Rabbi performed my sister's wedding ceremony.

Example: The police were urged to **stop drinking by the fifth**.
Meaning one: The police were urged to stop others from drinking by the fifth of the month.
Meaning two: The police were encouraged to stop themselves from drinking beyond their fifth drink.

a. We laughed at the colourful ball.

- We laughed at the decorative/bright toy ball
- We laughed at the interesting toy ball
- We laughed at the decorative/bright dance
- We laughed at the interesting dance

b. **He was knocked over by the punch.**

- He was strongly affected by the potent drink
- He was strongly affected by the hit with the fist.
- He was greatly impressed/overwhelmed/amazed with delight by the potent drink.
- He fell over when hit with the fist

c. **I said I would file it next Thursday.**

- I said I would throw it out next Thursday
- I said I would put it away in a file drawer next Thursday.
- I said I would shape/smooth it with a metal instrument next Thursday.

d. **I cannot recommend visiting professors too highly.**

- Praise highly going to professors' offices
- Praise highly professors who are visiting from other universities

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 12 when you are teaching Kindergarten to Grade 3 children to read (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

13. **Circle the consonant digraphs (not every word has a digraph).**

crash shepherd doubt every

wrap daughter think

"Consonant digraph: Written letter combination that corresponds to one speech sound but is not represented by either letter alone, such as *th* or *ph*" (Moats, 2000, p. 231).

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 13 when you are teaching Kindergarten to Grade 3 children to read (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

14. **Now that you have been out of university/college and worked in the school environment, what do you believe was missing (if anything) from your university/college training program in the area of reading?**

15. **Are there any areas or topics you would like to learn more about during future inservices or professional development opportunities in the area(s) of:**

(1) Language and/or communication.

(2) Reading/Language Arts

(3) Special Education.

(4) Other Areas (Please indicate any specific topics that would be of interest)

Appendix G

Questionnaire: Draft Three

ORAL LANGUAGE QUESTIONNAIRE

- Before you complete this questionnaire, please note that although it appears lengthy prior administrations showed teachers needed approximately 30 - 40 minutes to complete it.

- Please seal your completed questionnaire in the provided prepaid University of Alberta envelope to ensure confidentiality, and return it by mail.

- Thank you for helping with this research project.

1. **Use the following set of words to answer the three questions below. All of these words/terms describe or are related to a specific subject (superordinate or main category), and can be categorized or grouped under three sub-category headings. All of the category headings, the main category and the sub-category headings, are already included among these words.**

paper
mulch
leaf
trunk
bark
root
parts
guitar
tools
chain saw
branch
skidder
beams
paneling
products
trees
axe
kindling
needle

1. a. The main category heading is ________________.

1. b. The three sub-category headings under which the rest of these words can be grouped:

____

1. c. Give two examples of terms, from the above list, that would fall under two of the sub-category headings you identified above.

Category 1: ______________ **Category 2:** ______________

Example 1: ______________ **Example 1:** ______________

Example 2: ______________ **Example 2:** ______________

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 1 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

2. Circle the free morpheme from which each longer word is constructed.

tearful

warmly

unlike

return

humourous

fortunate

knighthood

misspell

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 2 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				Very Important
0	1	2	3	4

3. Identify and circle all of the morphemes in these words (circle each morpheme).

watchdog

contract

odometer

piped

dodgers

telemarketing

mistletoe

injection

biodegradable

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 3 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				Very Important
0	1	2	3	4

4. **Speakers use different styles or registers during verbal exchanges. These styles often vary in different environments and with different listeners. Match the most appropriate verbal exchange to the following speaker and listener combinations (i.e., place the number of the phrase beside the situation that it best matches).**

a.
(1) My history mark really sucked.
(2) My history mark was much lower than I expected.
(3) My history mark was awful, that test was a real killer.

____ Speaker: University student
Listener: University professor
Context: Meeting in professor's office. Questioning a poor grade received on a midterm exam.

____ Speaker: Teenager
Listener: Friend
Context: High school cafeteria. Commenting on a poor grade received on a midterm exam.

____ Speaker: University student
Listener: University professor
Context: Over drinks at a bar. Commenting on a poor grade received on a midterm exam.

b.
(1) Hurry up, you're dawdling and I have to be somewhere.
(2) I need to leave now, I have an appointment.
(3) Can we speed this up, I'm not getting any younger.

____ Speaker: Adult
Listener: Unfamiliar Waitress
Location: Waiting for the bill so he can leave a restaurant for a meeting at the office.

____ Speaker: Adult
Listener: Friend
Location: Waiting for friend to pay the bill so he can leave a restaurant for a meeting at the office.

____ Speaker: Adult
Listener: Child
Location: Waiting for child to get ready so he can leave a restaurant for a meeting at the child's school.

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 4 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

5. The following sentences contain word(s) that have more than one meaning. Identify the multiple meaning word(s), and provide two paraphrases explaining two of the possible meanings of each sentence (Note: Some sentences may contain more than one multiple meaning word).

Example: ***She can't bear children*** **can mean either**
(1) ***She can't give birth to children*** **or (2)** ***She can't tolerate children.***

a. He waited by the bank.

____

____

____

b. Is he really that kind?

____

____

____

c. The proprietor of the fish store was the sole owner.

____

____

____

d. The long drill was boring.

____

____

____

e. When he got the clear title to the land, it was a good deed.

____

____

____

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 5 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

6. For each word on the left, determine the number of syllables and the number of morphemes.

	Syllables	**Morphemes**
salamander	_____	_____
crocodile	_____	_____
attached	_____	_____
unbelievable	_____	_____
finger	_____	_____
pies	_____	_____
gardener	_____	_____
psychometric	_____	_____

On a scale from 0 to 4, please rate how important it is for you to understand the concepts represented in question # 6 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

7. Circle the consonant blends (not every word has a blend).

pumpkin	known	first
doubt	squawk	scratch

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 7 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

8. Language use can be categorized according to seven functions (Bainbridge & Malicky, 2000; Halliday, 1977). These language functions include:

(i) **Instrumental** (language as a means of getting things, satisfying material needs)

(ii) **Regulatory** (controlling the behaviour, feelings, or attitudes of others)

(iii) **Interactional** (getting along with others, establishing relative status and separate means)

(iv) **Personal** (expressing individuality, awareness of self, pride)

(v) **Heuristic** (seeking and testing knowledge)

(vi) **Imaginative** (creating new worlds, making up stories or poems)

(vii) **Representational** (communicating information, descriptions, expressing propositions)

In each of the following examples, identify which one of the seven language functions described above is best represented in italics.

a. Child asks grandfather while looking at family photos, *"Did grandma always have white hair?"*
Language Function: ______________________

b. Child on the first day of school tells her teacher, *"I won a prize for playing the piano yesterday."*
Language Function: ______________________

c. Child says to grandmother while out walking in the park, *"What if I was ten feet tall and I could touch the top of that tree?"*
Language Function: ______________________

d. Child stands up at the front of the classroom to report on a book she has read and says, *"This book says that pigs sleep in the mud."*
Language Function: ______________________

e. Child says to his friend during free play period in the Kindergarten room, *"I like to pretend I'm a mom who's going to buy some food at your store."*
Language Function: ______________________

f. For the third time during math class the teacher says to the child, *"I told you to open your book to page twelve."*
Language Function: ______________________

g. Child leans over in science class and says to his lab partner, *"What would happen if I mixed the baking soda and the vinegar together?"*
Language Function: ______________________

h. Child tells teacher during a class discussion in language arts, *"The boy was lying in the story and not telling the truth."*
Language Function: ______________________

i. During lunch Mrs. Jones tells Mrs. Smith, *"I had a great weekend. My garden has never looked better. How was your weekend?"*
Language Function: ______________________

j. Mother is feeding the baby and says to her older child, *"I need you to buy me a loaf of bread from the grocery store because I can't go out right now."*
Language Function: ______________________

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 8 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

9. **Phrases can often be interpreted both literally and figuratively. Imagine you are explaining the meaning of the following phrases to a student. Provide both the literal and figurative interpretations for each item.**

Example: "Kick the bucket"
Literal Meaning: Someone used his foot to kick the pail
Figurative Meaning: Someone died

a. **"Get up on the wrong side of the bed"**

Literal Meaning: ______________________________

Figurative Meaning: ______________________________

b. **"Raining cats and dogs"**

Literal Meaning: ______________________________

Figurative Meaning: ______________________________

c. **"Let the cat out of the bag"**

Literal Meaning: ______________________________

Figurative Meaning: ______________________________

d. **"Blow the whistle"**

Literal Meaning: ______________________________

Figurative Meaning: ______________________________

e. **"Until the cows come home"**

Literal Meaning: ______________________________

Figurative Meaning: ______________________________

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 9 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

10. How many speech sounds are in the following words?

ox ________
wrought ________
king ________
thank ________
streamer ________
ship ________
thought ________
precious ________

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 10 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

11. What is the third speech sound in each of the following words?

mix ________
squabble ________
stood ________
socks ________
witchcraft ________
thank you ________
badger ________
prank ________
chalk ________
washing ________

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 11 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

12. The following sentences can be interpreted, as a whole, to have more than one meaning. Provide paraphrases explaining two of the possible meanings conveyed by each of the following sentences.

Example: The Rabbi **married** my sister.
Meaning one: The Rabbi and my sister got married.
Meaning two: The Rabbi performed my sister's wedding ceremony.

Example: The police were urged to **stop drinking by the fifth**.
Meaning one: The police were urged to stop others from drinking by the fifth of the month.
Meaning two: The police were encouraged to stop themselves from drinking beyond their fifth drink.

a. We laughed at the colourful ball.

____

____

b. He was knocked over by the punch.

____

____

c. I said I would file it.

____

____

d. I cannot recommend visiting professors too highly.

____

____

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 12 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

13. **Now that you have been out of university/college and worked in the school environment, what do you believe was missing (if anything) from your university/college training program in the area of reading?**

14. **Are there any areas or topics you would like to learn more about during future inservices or professional development opportunities in the area(s) of:**

(1) Language and/or communication.

(2) Reading/Language Arts

(3) Special Education.

(4) Other Areas (Please indicate any specific topics that would be of interest)

Please complete the following identifying information.

1. Gender (Please circle) Male Female

2. Age _______

3. Please indicate all diploma(s) and/or degree(s) you have completed and your area(s) of specialization in each diploma and/or degree (e.g., Bachelor of Education -Elementary education with English major from the University of Alberta in 1980)

Diploma/Degree	Area of Specialization	University Attended	Year Completed

4. Please indicate any diploma(s) and/or degree(s) you are currently working on completing and your area(s) of specialization. If you are not working on completing a diploma or degree, please place a check mark beside "none."

Diploma/Degree	Area of Specialization	University Attending	Year Began Studies	Anticipated Year of Completion

None _____

5. Please identify the province(s) in which you are currently certified/licensed as a teacher ____

Please indicate any other teaching related certifications you currently possess (e.g., Canadian Association of Educators of the Deaf and Hard of Hearing certification)

____

6. Please indicate the number of *university/college* courses you have taken in each of the following areas (Place a check mark in the appropriate box to give your best estimate if you can not recall specific numbers).

I have taken:

	0 Courses	1-5 Courses	6-10 Courses	11-15 Courses	16 – 20 Courses	21 + Courses
Linguistics						
English (i.e., literature)						
Teaching English as a Second Language						
Language Arts						
Special Education						

7. Please indicate the number of hours of *continuing education* and/or *inservice time* you have had in each of the following areas (Place a check mark in the appropriate box to give your best estimate if you can not recall specific numbers):

I have:

	0 -50 Hours	51-100 Hours	101-150 Hours	151-200 Hours	201 + Hours
Linguistics					
English (i.e., literature)					
Teaching English as a Second Language					
Language Arts					
Special Education					

8. List any languages, other than English, that you can:

Understand	Speak	Read	Write

9. Please fill in the following information regarding your teaching experience:

Years of Full-Time Teaching	Years of Part-Time Teaching	Years as a Substitute Teacher	Total Number Years Have Taught
Year(s)	Year(s)	Year(s)	Year(s)

Experience in the Regular Classroom:

Years Taught in Kindergarten to Grade 3	Years Taught in Grades 4 to 6	Years Taught in Grades 7 to 8	Years Taught in Grades 9 to 12
Year(s)	Year(s)	Year(s)	Year(s)

Other Educational Experience:

Years in Administration	Years as a Consultant	Years as a Special Education Teacher
Year(s)	Year(s)	Year(s)

10. What grade level(s) are you currently teaching? ____________

11. Please indicate any specific reading or language arts programs you use in your classroom (e.g., Balanced Literacy). ________________________________

Draft Three Answer Key

ORAL LANGUAGE QUESTIONNAIRE

- Before you complete this questionnaire, please note that although it appears lengthy prior administrations showed teachers needed approximately 30 - 40 minutes to complete it.
- Please seal your completed questionnaire in the provided prepaid University of Alberta envelope to ensure confidentiality, and return it by mail.
- Thank you for helping with this research project.

1. Use the following set of words to answer the three questions below. All of these words/terms describe or are related to a specific subject (superordinate or main category), and can be categorized or grouped under three sub-category headings. All of the category headings, the main category and the sub-category headings, are already included among these words.

paper
mulch
leaf
trunk
bark
root
parts
guitar
tools
chain saw
branch
skidder
beams
paneling
products
trees
axe
kindling
needle

1. a. The main category heading is TREES.

1. b. The three sub-category headings under which the rest of these words can be grouped:
PRODUCTS, PARTS, TOOLS

1. c. Give two examples of terms, from the above list, that would fall under two of the sub-category headings you identified above.

Category 1: ______________
Example 1: ______________
Example 2: ______________

Category 2: ______________
Example 1: ______________
Example 2: ______________

TREES

PRODUCTS	PARTS	TOOLS
PAPER	BARK	AXE
PANELING	TRUNK	CHAINSAW
GUITAR	ROOT	SKIDDER
MULCH	NEEDLE	
BEAMS	BRANCH	
KINDLING	LEAF	

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 1 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

2. Circle the free morpheme from which each longer word is constructed.

tearful

warmly

unlike

return

humourous

fortun(e)ate

knighthood

misspell

"Free morpheme: meaning unit that can occur alone, such as dog, chair, run, and fast" (Owens, 1992, p. 526).

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 2 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

3. Identify and circle all of the morphemes in these words (circle each morpheme).

watchdog (watch-dog)

contract (contract)

odometer (odo-meter)

piped (pip(e) – ed)

dodgers (dodg(e)-er-s)

telemarketing (tele-market-ing)

mistletoe (mistletoe)

injection (inject-ion)

biodegradable

(bio-de-grade(e)-able)

"Morpheme: smallest unit of meaning; indivisible (dog) without violating the meaning or producing meaningless units (do, g). There are two types of morphemes, free and bound" (Owens, 1992, p. 528).

"Bound morpheme: Meaning unit that cannot occur alone but must be joined to a free morpheme; generally includes grammatical tags or markers that are derivational, such as –ly, -er, or –ment, or inflectional, such as -ed or -s" (Owens, 1992, p. 524).

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 3 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important 0	1	2	3	Very Important 4

4. Speakers use different styles or registers during verbal exchanges. These styles often vary in different environments and with different listeners. Match the most appropriate verbal exchange to the following speaker and listener combinations (i.e., place the number of the phrase beside the situation that it best matches).

a. (1) My history mark really sucked.
(2) My history mark was much lower than I expected.
(3) My history mark was awful, that test was a real killer.

2 Speaker: University student
Listener: University professor
Context: Meeting in professor's office. Questioning a poor grade received on a midterm exam.

1 Speaker: Teenager
Listener: Friend
Context: High school cafeteria. Commenting on a poor grade received on a midterm exam.

3 Speaker: University student
Listener: University professor
Context: Over drinks at a bar. Commenting on a poor grade received on a midterm exam.

b. (1) Hurry up, you're dawdling and I have to be somewhere.
(2) I need to leave now, I have an appointment.
(3) Can we speed this up, I'm not getting any younger.

2 Speaker: Adult
Listener: Unfamiliar Waitress
Location: Waiting for the bill so he can leave a restaurant for a meeting at the office.

3 Speaker: Adult
Listener: Friend

Location: Waiting for friend to pay the bill so he can leave a restaurant for a meeting at the office.

1 Speaker: Adult
Listener: Child
Location: Waiting for child to get ready so he can leave a restaurant for a meeting at the child's school.

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 4 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

5. The following sentences contain word(s) that have more than one meaning. Identify the multiple meaning word(s), and provide two paraphrases explaining two of the possible meanings of each sentence (Note: Some sentences may contain more than one multiple meaning word).

Example: *She can't bear children* can mean either
(1) *She can't give birth to children* or (2) *She can't tolerate children*.

a. He waited by the bank.

WAITED:

- DEFER ACTION OR DEPARTURE; AWAIT, BIDE, DEFER; TO POSTPONE OR DELAY
- TO REMAIN INACTIVE OR IN A STATE OF REPOSE
- ACT AS WAITER OR SERVANT; TO WORK OR SERVE AS A WAITER

BANK:

- RIVER BANK; SLOPE IMMEDIATELY BORDERING A STREAM COURSE ALONG WHICH THE WATER NORMALLY RUNS
- LARGE PILE OR HEAP
- SLOPE OR ACCLIVITY
- FINANCIAL INSTITUTION
- GROUP OF SIMILAR OBJECTS CONNECTED IN A LINE

b. Is he really that kind?

- NICE
- TYPE OF PERSON

c. The proprietor of the fish store was the sole owner.

- ONLY OWNER
- OWNED THE FISH OF THE SOLE VARIETY

d. The long drill was boring.
- LENGTHY TOOL WAS DRILLING A HOLE/WELL
- LENGHTY SHELLFISH WAS MAKING A HOLE
- LENGTHY WEST AFRICAN BABOON WAS MAKING A HOLE

- LENGHTY COARSE TWILL LINEN/COTTON FABRIC WAS NOT EXCITING
- SLOW/TIME CONSUMING EXERCISE WAS NOT EXCITING
- SLOW/TIME CONSUMING TOOL WAS DRILLING A HOLE/WELL

e. When he got the clear title to the land, it was a good deed.

CLEAR TITLE:
- NO OTHERS IN HIS WAY/UNOBSTRUCTED
- WELL WRITTEN/INTELLIGIBLE

GOOD DEED
- NICE OF HIM TO DO SO
- PAPER WORK WAS ALL IN ORDER/LEGITIMATE

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 5 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

6. For each word on the left, determine the number of syllables and the number of morphemes.

	Syllables	**Morphemes**
salamander	4	1
crocodile	3	1
attached	2	2
unbelievable	5	3
finger	2	1
pies	1	2
gardener	3	2
psychometric	4	2

On a scale from 0 to 4, please rate how important it is for you to understand the concepts represented in question # 6 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

7. Circle the consonant blends (not every word has a blend).

pumpkin known first

doubt squawk scratch

"Consonant cluster: Adjacent consonants within a syllable, before or after a vowel sound; oral language equivalent of the term consonant blend"(Moats, 2000, p. 231).

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 7 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				Very Important
0	1	2	3	4

8. Language use can be categorized according to seven functions (Bainbridge & Malicky, 2000; Halliday, 1977). These language functions include:

- (i) **Instrumental** (language as a means of getting things, satisfying material needs)
- (ii) **Regulatory** (controlling the behaviour, feelings, or attitudes of others)
- (iii) **Interactional** (getting along with others, establishing relative status and separate means)
- (iv) **Personal** (expressing individuality, awareness of self, pride)
- (v) **Heuristic** (seeking and testing knowledge)
- (vi) **Imaginative** (creating new worlds, making up stories or poems)
- (vii) **Representational** (communicating information, descriptions, expressing propositions)

In each of the following examples, identify which one of the seven language functions described above is best represented in italics.

a. Child asks grandfather while looking at family photos, *"Did grandma always have white hair?"*
Language Function: HEURISTIC (V)

b. Child on the first day of school tells her teacher, *"I won a prize for playing the piano yesterday."*
Language Function: PERSONAL (IV)

c. Child says to grandmother while out walking in the park, *"What if I was ten feet tall and I could touch the top of that tree?"*
Language Function: IMAGINATIVE (VI)

d. Child stands up at the front of the classroom to report on a book she has read and says, *"This book says that pigs sleep in the mud."*
Language Function: REPRESENTATIONAL (VII)

e. Child says to his friend during free play period in the Kindergarten room, *"I like to pretend I'm a mom who's going to buy some food at your store."*
Language Function: IMAGINATIVE (VI)

f. For the third time during math class the teacher says to the child, *"I told you to open your book to page twelve."*
Language Function: REGULATORY (II)

g. Child leans over in science class and says to his lab partner, *"What would happen if I mixed the baking soda and the vinegar together?"*
Language Function: HEURISTIC (V)

h. Child tells teacher during a class discussion in language arts, *"The boy was lying in the story and not telling the truth."*
Language Function: REPRESENTATIONAL (VII)

i. During lunch Mrs. Jones tells Mrs. Smith, *"I had a great weekend. My garden has never looked better. How was your weekend?"*
Language Function: INTERACTIONAL (III)

j. Mother is feeding the baby and says to her older child, *"I need you to buy me a loaf of bread from the grocery store because I can't go out right now."*
Language Function: INSTRUMENTAL (I)

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 8 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

9. Phrases can often be interpreted both literally and figuratively. Imagine you are explaining the meaning of the following phrases to a student. Provide both the literal and figurative interpretations for each item.

Example: "Kick the bucket"
Literal Meaning: Someone used his foot to kick the pail
Figurative Meaning: Someone died

a. **"Get up on the wrong side of the bed"**

Literal Meaning: SOMEONE USUALLY GETS OUT OF THE BED ON THE RIGHT SIDE, BUT GOT OUT ON THE LEFT SIDE TODAY

Figurative Meaning: SOMEONE IS IN A BAD MOOD/BAD TEMPERED ALL DAY

b. **"Raining cats and dogs"**

Literal Meaning: CATS AND DOGS ARE FALLING OUT OF THE SKY

Figurative Meaning: HARD RAIN; RAIN IS POURING DOWN

c. **"Let the cat out of the bag"**

Literal Meaning: OPENED A BAG THAT A CAT WAS IN AND LET IT JUMP OUT

Figurative Meaning: REVEALED A SECRET

d. **"Blow the whistle"**

Literal Meaning: BLOW AIR INTO A WHISTLE TO MAKE A SOUND

Figurative Meaning: TELL THE AUTHORITIES ABOUT WRONGDOING; EXPOSE (SOMEONE'S) ILLEGAL OR SECRET ATIONS TO PUBLIC SCRUTINY OR INVESTIGATION WITH INTENTION OF HAVING THEM STOPPED; TATTLE

e. **"Until the cows come home"**

Literal Meaning: WHEN THE GROUP OF COWS COME BACK TO WHERE THEY LIVE

Figurative Meaning: FOREVER; FOR AN INDEFINITELY LONG TIME

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 9 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

10. How many speech sounds are in the following words?

ox	3
wrought	3
king	3
thank	4
streamer	6
ship	3
thought	3
precious	6

"Phoneme: smallest linguistic unit of sound, each with distinctive features, that can signal a difference in meaning when modified" (Owens, 1992, p. 529).

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 10 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

11. What is the third speech sound in each of the following words?

mix	K	thank you	NG
squabble	W	badger	DG (J)
stood	OO	prank	A
socks	K	chalk	K
witchcraft	CH	washing	SH

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 11 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

12. **The following sentences can be interpreted, as a whole, to have more than one meaning. Provide paraphrases explaining two of the possible meanings conveyed by each of the following sentences.**

Example: The Rabbi **married** my sister.
Meaning one: The Rabbi and my sister got married.
Meaning two: The Rabbi performed my sister's wedding ceremony.

Example: The police were urged to **stop drinking by the fifth**.
Meaning one: The police were urged to stop others from drinking by the fifth of the month.
Meaning two: The police were encouraged to stop themselves from drinking beyond their fifth drink.

a. **We laughed at the colourful ball.**
- WE LAUGHED AT THE DECORATIVE/BRIGHT TOY BALL
- WE LAUGHED AT THE INTERESTING TOY BALL

- WE LAUGHED AT THE DECORATIVE/BRIGHT DANCE
- WE LAUGHED AT THE INTERESTING DANCE

b. **He was knocked over by the punch.**
- HE WAS STRONGLY AFFECTED BY THE POTENT DRINK
- HE WAS STRONGLY AFFECTED WHEN HE WAS HIT BY THE FIST
- HE WAS GREATLY IMPRESSED/OVERWHELMED/AMAZED WITH DELIGHT BY THE POTENT DRINK
- HE FELL OVER WHEN HIT BY THE FIST
- HE FELL OVER NEAR THE BOWL OF PUNCH/THE DRINK

c. **I said I would file it.**
- I SAID I WOULD THROW IT OUT
- I SAID I WOULD PUT IT AWAY IN A FILE DRAWER/PLACE IT IN A FILE; ARRANGE PAPERS IN A CONVENIENT ORDER FOR STORAGE OR RETRIEVAL
- I SAID I WOULD TRANSMIT IT (I.E., A NEWS STORY BY WIRE)
- I SAID I WOULD SHAPE/SMOOTH IT WITH A METAL INSTRUMENT
- I SAID I WOULD INITIATE LEGAL PROCEEDINGS

d. **I cannot recommend visiting professors too highly.**
- PRAISE HIGHLY GOING TO PROFESSORS' OFFICES
- PRAISE HIGHLY PROFESSORS WHO ARE VISITING FROM OTHER UNIVERSITIES

- DON'T RECOMMEND GOING TO PROFESSORS' OFFICES
- DON'T RECOMMEND PROFESSORS WHO ARE VISITING FROM OTHER UNIVERSITIES

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 12 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

Appendix H

Percentage of Agreement Between Raters 1 and 2

Language Domain	Question	Percentage
Form	2a	100
	2b	100
	2c	95
	2d	100
	2e	100
	2f	100
	2g	100
	2h	100
	3a	85
	3b	100
	3c	100
	3d	100
	3e	100
	3f	100
	3g	100
	3h	100
	3i	100
	6a Syllable Scores	100
	6b	100
	6c	100
	6d	95
	6e	100
	6f	100
	6g	100
	6h	100
	6a Morpheme Scores	100
	6b	100
	6c	100
	6d	100
	6e	100
	6f	100
	6g	100
	6h	95
	7a	100
	7b	84
	7c	90
	7d	90

Percentage of Agreement Between Raters 1 and 2 Continued

Language Domain	Question	Percentage
Form	7e	100
	7f	100
	10a	100
	10b	100
	10c	100
	10d	100
	10e	100
	10f	100
	10g	100
	10h	100
	11a	100
	11b	95
	11c	85
	11d	100
	11e	100
	11f	100
	11g	100
	11h	100
	11i	100
	11j	95
Content	1a	100
	1ba	100
	1bb	100
	1bc	100
	1ca	100
	1cb	100
	1cc	100
	1cd	100
	1ce	100
	1cf	100
	5a	85
	5b	95
	5c	85
	5d	90
	5e	65
	9a Literal Scores	80
	9b	100
	9c	95
	9d	95
	9e	95

Percentage of Agreement Between Raters 1 and 2 Continued

Language Domain	**Question**	**Percentage**
Content	9a Figurative Scores	90
	9b	100
	9c	100
	9d	100
	9e	90
	12a Word Scores	95
	12b	80
	12c	95
	12d	70
	12a Sentence Scores	90
	12b	85
	12c	85
	12d	85
Use	4aa	100
	4ab	100
	4ac	100
	4ba	100
	4bb	100
	4bc	100
	8a	100
	8b	100
	8c	100
	8d	100
	8e	100
	8f	100
	8g	100
	8h	100
	8i	100
	8j	95

Note. Percentage denotes the percentage of agreement between the scores provided by rater 1 for each item and rater 2 for each item on twenty questionnaires

Appendix I

Questionnaire: Final Draft

ASSESSMENT OF ORAL LANGUAGE KNOWLEDGE

1. Use the following set of words to answer the three questions below. All of these words/terms describe or are related to a specific subject (superordinate or main category), and can be categorized or grouped under three sub-category headings. All of the category headings, the main category and the sub-category headings, are already included among these words.

paper
mulch
leaf
trunk
bark
root
parts
guitar
tools
chain saw
branch
skidder
beams
paneling
products
trees
axe
kindling
needle

1. a. The main category heading is ____________________.

1. b. The three sub-category headings under which the rest of these words can be grouped:

____

1. c. Give two examples of terms, from the above list, that would fall under two of the sub-category headings you identified above.

Category 1: ________________	**Category 2:** ________________
Example 1: ________________	**Example 1:** ________________
Example 2: ________________	**Example 2:** ________________

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 1 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

2. **Circle the free morpheme from which each longer word is constructed.**

tearful

warmly

unlike

return

humourous

fortunate

knighthood

misspell

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 2 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

3. **Identify and circle all of the morphemes in these words (circle each morpheme).**

watchdog

contract

odometer

piped

dodgers

telemarketing

mistletoe

injection

biodegradable

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 3 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

4. Speakers use different styles or registers during verbal exchanges. These styles often vary in different environments and with different listeners. Match the most appropriate verbal exchange to the following speaker and listener combinations (i.e., place the number of the phrase beside the situation that it best matches).

a. (1) My history mark really sucked.
(2) My history mark was much lower than I expected.
(3) My history mark was awful, that test was a real killer.

____ Speaker: University student
Listener: University professor
Context: Meeting in professor's office. Questioning a poor grade received on a midterm exam.

____ Speaker: Teenager
Listener: Friend
Context: High school cafeteria. Commenting on a poor grade received on a midterm exam.

____ Speaker: University student
Listener: University professor
Context: Over drinks at a bar. Commenting on a poor grade received on a midterm exam.

b. (1) Hurry up, you're dawdling and I have to be somewhere.
(2) I need to leave now, I have an appointment.
(3) Can we speed this up, I'm not getting any younger.

____ Speaker: Adult
Listener: Unfamiliar Waitress
Location: Waiting for the bill so he can leave a restaurant for a meeting at the office.

____ Speaker: Adult
Listener: Friend
Location: Waiting for friend to pay the bill so he can leave a restaurant for a meeting at the office.

____ Speaker: Adult
Listener: Child
Location: Waiting for child to get ready so he can leave a restaurant for a meeting at the child's school.

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 4 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

5. The following sentences contain word(s) that have more than one meaning. Identify the multiple meaning word(s), and provide two paraphrases explaining two of the possible meanings of each sentence (Note: Some sentences may contain more than one multiple meaning word).

Example: The word "bear" in the sentence *She can't bear children* can mean either: (1) *to give birth to children* or (2) *to tolerate*.

a. He waited by the bank.

____

____

____

b. Is he really that kind?

____

____

____

c. The proprietor of the fish store was the sole owner.

____

____

____

d. The long drill was boring.

____

____

____

e. When he got the clear title to the land, it was a good deed.

____

____

____

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 5 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

6. Determine the number of syllables and/or morphemes in the following words.

a. For each word on the left, determine the number of syllables.

	Syllables
unbelievable	________
psychometric	________

b. For each word on the left, determine the number of morphemes.

	Morphemes
salamander	________
crocodile	________
attached	________
unbelievable	________
finger	________
pies	________
gardener	________

On a scale from 0 to 4, please rate how important it is for you to understand the concepts represented in question # 6 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

7. Circle the consonant blends (not every word has a blend).

pumpkin known first

doubt squawk scratch

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 7 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

8. Language use can be categorized according to seven functions (Bainbridge & Malicky, 2000; Halliday, 1977). These language functions include:

(i) **Instrumental** (language as a means of getting things, satisfying material needs)

(ii) **Regulatory** (controlling the behaviour, feelings, or attitudes of others)

(iii) **Interactional** (getting along with others, establishing relative status and separate means)

(iv) **Personal** (expressing individuality, awareness of self, pride)

(v) **Heuristic** (seeking and testing knowledge)

(vi) **Imaginative** (creating new worlds, making up stories or poems)

(vii) **Representational** (communicating information, descriptions, expressing propositions)

In each of the following examples, identify which one of the seven language functions described above is best represented in italics.

a. Child asks grandfather while looking at family photos, *"Did grandma always have white hair?"*
Language Function: ______________________

b. Child stands up at the front of the classroom to report on a book she has read and says, *"This book says that pigs sleep in the mud."*
Language Function: ______________________

c. For the third time during math class the teacher says to the child, *"I told you to open your book to page twelve."*
Language Function: ______________________

d. Child tells teacher during a class discussion in language arts, *"The boy was lying in the story and not telling the truth."*
Language Function: ______________________

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 8 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

9. **Phrases can often be interpreted both literally and figuratively. Imagine you are explaining the meaning of the following phrases to a student.**

Example: "Kick the bucket"
Literal Meaning: Someone used his foot to kick the pail
Figurative Meaning: Someone died

Provide the literal interpretations for items a to d.

a. **"Get up on the wrong side of the bed"**

Literal Meaning: ______________________________________

b. **"Let the cat out of the bag"**

Literal Meaning: ______________________________________

c. **"Blow the whistle"**

Literal Meaning: ______________________________________

d. **"Until the cows come home"**

Literal Meaning: ______________________________________

Provide the figurative interpretations for items e to g.

e. **"Let the cat out of the bag"**

Figurative Meaning: ______________________________

f. **"Blow the whistle"**

Figurative Meaning: ______________________________

g. **"Until the cows come home"**

Figurative Meaning: ______________________________

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 9 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

10. How many speech sounds are in the following words?

ox ________

wrought ________

king ________

thank ________

streamer ________

ship ________

thought ________

precious ________

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 10 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

11. **What is the third speech sound in each of the following words?**

mix ________

squabble ________

stood ________

socks ________

witchcraft ________

thank you ________

badger ________

prank ________

washing ________

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 11 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				Very Important
0	1	2	3	4

12. **The following sentences can be interpreted, as a whole, to have more than one meaning. Provide paraphrases explaining two of the possible meanings conveyed by each of the following sentences.**

Example: The Rabbi **married** my sister.
Meaning one: The Rabbi and my sister got married.
Meaning two: The Rabbi performed my sister's wedding ceremony.

Example: The police were urged to **stop drinking by the fifth**.
Meaning one: The police were urged to stop others from drinking by the fifth of the month.
Meaning two: The police were encouraged to stop themselves from drinking beyond their fifth drink.

a. **He was knocked over by the punch.**

____

____

b. **I said I would file it.**

____

____

c. I cannot recommend visiting professors too highly.

____

____

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 12 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				Very Important
0	1	2	3	4

13. Now that you have been out of university/college and worked in the school environment, what do you believe was missing (if anything) from your university/college training program in the area of reading?

14. Are there any areas or topics you would like to learn more about during future inservices or professional development opportunities in the area(s) of:

(1) Language and/or communication.

(2) Reading/Language Arts

(3) Special Education.

(4) Other Areas (Please indicate any specific topics that would be of interest)

Please complete the following identifying information.

1. Gender (Please circle) Male Female

2. Age ________

3. Please indicate all diploma(s) and/or degree(s) you have completed and your area(s) of specialization in each diploma and/or degree (e.g., Bachelor of Education -Elementary education with English major from the University of Alberta in 1980)

Diploma/Degree	Area of Specialization	University Attended	Year Completed

4. Please indicate any diploma(s) and/or degree(s) you are currently working on completing and your area(s) of specialization. If you are not working on completing a diploma or degree, please place a check mark beside "none."

Diploma/Degree	Area of Specialization	University Attending	Year Began Studies	Anticipated Year of Completion

None _____

5. Please identify the province(s) in which you are currently certified/licensed as a teacher ____

Please indicate any other teaching related certifications you currently possess (e.g., Canadian Association of Educators of the Deaf and Hard of Hearing certification)

____

6. Please indicate the number of *university/college* courses you have taken in each of the following areas (Place a check mark in the appropriate box to give your best estimate if you can not recall specific numbers).

I have taken:

	0 Courses	1-5 Courses	6-10 Courses	11-15 Courses	16 – 20 Courses	21 + Courses
Linguistics						
English (i.e., literature)						
Teaching English as a Second Language						
Language Arts						
Special Education						

7. Please indicate the number of hours of *continuing education* and/or *inservice time* you have had in each of the following areas (Place a check mark in the appropriate box to give your best estimate if you can not recall specific numbers):

I have:

	0 -50 Hours	51-100 Hours	101-150 Hours	151-200 Hours	201 + Hours
Linguistics					
English (i.e., literature)					
Teaching English as a Second Language					
Language Arts					
Special Education					

8. List any languages, other than English, that you can:

Understand	Speak	Read	Write

9. Please fill in the following information regarding your teaching experience:

Years of Full-Time Teaching	Years of Part-Time Teaching	Years as a Substitute Teacher	Total Number Years Have Taught
Year(s)	Year(s)	Year(s)	Year(s)

Experience in the Regular Classroom:

Years Taught in Kindergarten to Grade 3	Years Taught in Grades 4 to 6	Years Taught in Grades 7 to 8	Years Taught in Grades 9 to 12
Year(s)	Year(s)	Year(s)	Year(s)

Other Educational Experience:

Years in Administration	Years as a Consultant	Years as a Special Education Teacher
Year(s)	Year(s)	Year(s)

10. What grade level(s) are you currently teaching? ____________

11. Please indicate any specific reading or language arts programs you use in your classroom (e.g., Balanced Literacy). ________________________________

Final Draft Answer Key

ORAL LANGUAGE QUESTIONNAIRE

- Before you complete this questionnaire, please note that although it appears lengthy prior administrations showed teachers needed approximately 30 - 40 minutes to complete it.
- Please seal your completed questionnaire in the provided prepaid University of Alberta envelope to ensure confidentiality, and return it by mail.
- Thank you for helping with this research project.

1. **Use the following set of words to answer the three questions below. All of these words/terms describe or are related to a specific subject (superordinate or main category), and can be categorized or grouped under three sub-category headings. All of the category headings, the main category and the sub-category headings, are already included among these words.**

paper
mulch
leaf
trunk
bark
root
parts
guitar
tools
chain saw
branch
skidder
beams
paneling
products
trees
axe
kindling
needle

1. a. **The main category heading is** TREES.

1. b. **The three sub-category headings under which the rest of these words can be grouped:**
PRODUCTS, PARTS, TOOLS

1. c. **Give two examples of terms, from the above list, that would fall under two of the sub-category headings you identified above.**

Category 1: _______________ **Category 2:** _______________

Example 1: _______________ **Example 1:** _______________

Example 2: _______________ **Example 2:** _______________

TREES

PRODUCTS	PARTS	TOOLS
PAPER	BARK	AXE
PANELING	TRUNK	CHAINSAW
GUITAR	ROOT	SKIDDER
MULCH	NEEDLE	
BEAMS	BRANCH	
KINDLING	LEAF	

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 1 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

2. Circle the free morpheme from which each longer word is constructed.

tearful

warmly

unlike

return

humourous

fortun(e)ate

knighthood

misspell

"Free morpheme: meaning unit that can occur alone, such as dog, chair, run, and fast" (Owens, 1992, p. 526).

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 2 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

3. Identify and circle all of the morphemes in these words (circle each morpheme).

watchdog (watch-dog)

contract (contract)

odometer (odo-meter)

piped (pip(e) – ed)

dodgers (dodg(e)-er-s)

telemarketing (tele-market-ing)

mistletoe (mistletoe)

injection (inject-ion)

biodegradable

(bio-de-grade(e)-able)

"Morpheme: smallest unit of meaning; indivisible (dog) without violating the meaning or producing meaningless units (do, g). There are two types of morphemes, free and bound" (Owens, 1992, p. 528).

"Bound morpheme: Meaning unit that cannot occur alone but must be joined to a free morpheme; generally includes grammatical tags or markers that are derivational, such as –ly, -er, or –ment, or inflectional, such as -ed or -s" (Owens, 1992, p. 524).

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 3 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				Very Important
0	1	2	3	4

4. Speakers use different styles or registers during verbal exchanges. These styles often vary in different environments and with different listeners. Match the most appropriate verbal exchange to the following speaker and listener combinations (i.e., place the number of the phrase beside the situation that it best matches).

a. (1) My history mark really sucked.
(2) My history mark was much lower than I expected.
(3) My history mark was awful, that test was a real killer.

2 Speaker: University student
Listener: University professor
Context: Meeting in professor's office. Questioning a poor grade received on a midterm exam.

1 Speaker: Teenager
Listener: Friend
Context: High school cafeteria. Commenting on a poor grade received on a midterm exam.

3 Speaker: University student
Listener: University professor
Context: Over drinks at a bar. Commenting on a poor grade received on a midterm exam.

b. (1) Hurry up, you're dawdling and I have to be somewhere.
(2) I need to leave now, I have an appointment.
(3) Can we speed this up, I'm not getting any younger.

2 Speaker: Adult
Listener: Unfamiliar Waitress
Location: Waiting for the bill so he can leave a restaurant for a meeting at the office.

3 Speaker: Adult
Listener: Friend

Location: Waiting for friend to pay the bill so he can leave a restaurant for a meeting at the office.

1 Speaker: Adult
Listener: Child
Location: Waiting for child to get ready so he can leave a restaurant for a meeting at the child's school.

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 4 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

5. The following sentence contains word(s) that have more than one meaning. Identify the multiple meaning word(s), and provide two paraphrases explaining two of the possible meanings of the sentence (Note: The sentence may contain more than one multiple meaning word).

Example: The word "bear" in the sentence *She can't bear children* can mean either
(1) *to give birth to children* or (2) *to tolerate*.

a. He waited by the bank.

WAITED:
- DEFER ACTION OR DEPARTURE; AWAIT, BIDE, DEFER; TO POSTPONE OR DELAY
- TO REMAIN INACTIVE OR IN A STATE OF REPOSE
- ACT AS WAITER OR SERVANT; TO WORK OR SERVE AS A WAITER

BANK:
- RIVER BANK; SLOPE IMMEDIATELY BORDERING A STREAM COURSE ALONG WHICH THE WATER NORMALLY RUNS
- LARGE PILE OR HEAP
- SLOPE OR ACCLIVITY
- FINANCIAL INSTITUTION
- GROUP OF SIMILAR OBJECTS CONNECTED IN A LINE

b. Is he really that kind?
- NICE
- TYPE OF PERSON

c. The proprietor of the fish store was the sole owner.
- ONLY OWNER
- OWNED THE FISH OF THE SOLE VARIETY

d. The long drill was boring.
- LENGTHY TOOL WAS DRILLING A HOLE/WELL
- LENGHTY SHELLFISH WAS MAKING A HOLE
- LENGTHY WEST AFRICAN BABOON WAS MAKING A HOLE

- LENGHTY COARSE TWILL LINEN/COTTON FABRIC WAS NOT EXCITING
- SLOW/TIME CONSUMING EXERCISE WAS NOT EXCITING
- SLOW/TIME CONSUMING TOOL WAS DRILLING A HOLE/WELL

e. When he got the clear title to the land, it was a good deed.

CLEAR TITLE:
- NO OTHERS IN HIS WAY/UNOBSTRUCTED
- WELL WRITTEN/INTELLIGIBLE

GOOD DEED
- NICE OF HIM TO DO SO
- PAPER WORK WAS ALL IN ORDER/LEGITIMATE

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 5 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**

6. Determine the number of syllables and/or morphemes in the following words.

a. For each word on the left, determine the number of syllables.

	Syllables
unbelievable	5
psychometric	4

b. For each word on the left, determine the number of morphemes.

	Morphemes
salamander	1
crocodile	1
attached	2
unbelievable	3
finger	1

pies	2
gardener	2

On a scale from 0 to 4, please rate how important it is for you to understand the concepts represented in question # 6 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				Very Important
0	1	2	3	4

7. Circle the consonant blends (not every word has a blend).

pumpkin known first

doubt squawk scratch

"Consonant cluster: Adjacent consonants within a syllable, before or after a vowel sound; oral language equivalent of the term consonant blend"(Moats, 2000, p. 231).

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 7 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				Very Important
0	1	2	3	4

8. Language use can be categorized according to seven functions (Bainbridge & Malicky, 2000; Halliday, 1977). These language functions include:

(i) **Instrumental** (language as a means of getting things, satisfying material needs)

(ii) **Regulatory** (controlling the behaviour, feelings, or attitudes of others)

(iii) **Interactional** (getting along with others, establishing relative status and separate means)

(iv) **Personal** (expressing individuality, awareness of self, pride)

(v) **Heuristic** (seeking and testing knowledge)

(vi) **Imaginative** (creating new worlds, making up stories or poems)

(vii) **Representational** (communicating information, descriptions, expressing propositions)

In each of the following examples, identify which one of the seven language functions described above is best represented in italics.

a. Child asks grandfather while looking at family photos, *"Did grandma always have white hair?"*
Language Function: HEURISTIC (V)

b. Child stands up at the front of the classroom to report on a book she has read and says, *"This book says that pigs sleep in the mud."*
Language Function: REPRESENTATIONAL (VII)

c. For the third time during math class the teacher says to the child, *"I told you to open your book to page twelve."*
Language Function: REGULATORY (II)

d. Child tells teacher during a class discussion in language arts, *"The boy was lying in the story and not telling the truth."*
Language Function: REPRESENTATIONAL (VII)

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 8 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				Very Important
0	1	2	3	4

9. **Phrases can often be interpreted both literally and figuratively. Imagine you are explaining the meaning of the following phrases to a student.**

Example: "Kick the bucket"
Literal Meaning: Someone used his foot to kick the pail
Figurative Meaning: Someone died

Provide the literal interpretations for items a to d.

a. **"Get up on the wrong side of the bed"**

Literal Meaning: SOMEONE USUALLY GETS OUT OF THE BED ON THE RIGHT SIDE, BUT GOT OUT ON THE LEFT SIDE TODAY

b. **"Let the cat out of the bag"**

Literal Meaning: OPENED A BAG THAT A CAT WAS IN AND LET IT JUMP OUT

c. **"Blow the whistle"**

Literal Meaning: BLOW AIR INTO A WHISTLE TO MAKE A SOUND

d. **"Until the cows come home"**

Literal Meaning: WHEN THE GROUP OF COWS COME BACK TO WHERE THEY LIVE

Provide the figurative interpretations for items e to g.

e. **"Let the cat out of the bag"**

Figurative Meaning: REVEALED A SECRET

f. **"Blow the whistle"**

Figurative Meaning: TELL THE AUTHORITIES ABOUT WRONGDOING; EXPOSE (SOMEONE'S) ILLEGAL OR SECRET ATIONS TO PUBLIC SCRUTINY OR INVESTIGATION WITH INTENTION OF HAVING THEM STOPPED; TATTLE

g. **"Until the cows come home"**

Figurative Meaning: FOREVER; FOR AN INDEFINITELY LONG TIME

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 9 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				Very Important
0	1	2	3	4

10. How many speech sounds are in the following words?

ox	3
wrought	3
king	3
thank	4
streamer	6
ship	3
thought	3
precious	6

"Phoneme: smallest linguistic unit of sound, each with distinctive features, that can signal a difference in meaning when modified" (Owens, 1992, p. 529).

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 10 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				Very Important
0	1	2	3	4

11. What is the third speech sound in each of the following words?

mix	K	thank you	NG
squabble	W	badger	DG (J)
stood	OO	prank	A
socks	K	washing	SH
witchcraft	CH		

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 11 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				Very Important
0	1	2	3	4

12. **The following sentences can be interpreted, as a whole, to have more than one meaning. Provide paraphrases explaining two of the possible meanings conveyed by each of the following sentences.**

Example: The Rabbi **married** my sister.
Meaning one: The Rabbi and my sister got married.
Meaning two: The Rabbi performed my sister's wedding ceremony.

Example: The police were urged to **stop drinking by the fifth**.
Meaning one: The police were urged to stop others from drinking by the fifth of the month.
Meaning two: The police were encouraged to stop themselves from drinking beyond their fifth drink.

a. **He was knocked over by the punch.**

- HE WAS STRONGLY AFFECTED BY THE POTENT DRINK
- HE WAS STRONGLY AFFECTED WHEN HE WAS HIT BY THE FIST
- HE WAS GREATLY IMPRESSED/OVERWHELMED/AMAZED WITH DELIGHT BY THE POTENT DRINK
- HE FELL OVER WHEN HIT BY THE FIST
- HE FELL OVER NEAR THE BOWL OF PUNCH/THE DRINK

b. **I said I would file it.**

- I SAID I WOULD THROW IT OUT
- I SAID I WOULD PUT IT AWAY IN A FILE DRAWER/PLACE IT IN A FILE; ARRANGE PAPERS IN A CONVENIENT ORDER FOR STORAGE OR RETRIEVAL
- I SAID I WOULD TRANSMIT IT (I.E., A NEWS STORY BY WIRE)
- I SAID I WOULD SHAPE/SMOOTH IT WITH A METAL INSTRUMENT
- I SAID I WOULD INITIATE LEGAL PROCEEDINGS

c. **I cannot recommend visiting professors too highly.**

- PRAISE HIGHLY GOING TO PROFESSORS' OFFICES
- PRAISE HIGHLY PROFESSORS WHO ARE VISITING FROM OTHER UNIVERSITIES

- DON'T RECOMMEND GOING TO PROFESSORS' OFFICES
- DON'T RECOMMEND PROFESSORS WHO ARE VISITING FROM OTHER UNIVERSITIES

On a scale from 0 to 4, please rate how important it is for you to understand the concept represented in question # 12 when you are teaching Language Arts to Kindergarten to Grade 3 children (Please circle your response).

Not Important				**Very Important**
0	**1**	**2**	**3**	**4**